

R. W. CRANDLEMERE & ASSOCIATES, INC.
PROTECTING BUSINESS AND THE ENVIRONMENT

ASTM PHASE I
ENVIRONMENTAL SITE ASSESSMENT
ONE, TWO, FOUR & FIVE WORLD TRADE CENTER
NEW YORK CITY, NY 10081

Project #000095

Merritt & Harris, Inc. #20-251E

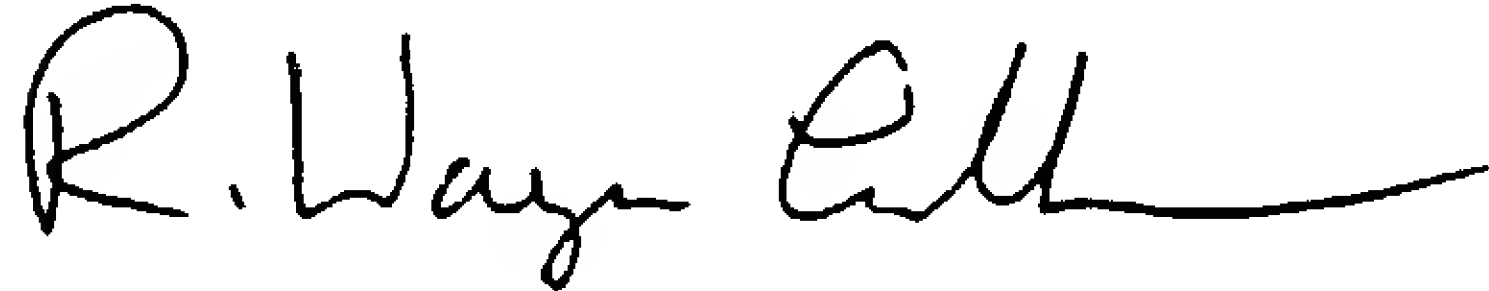
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Date Issued: November 7, 2000

The ASTM 1527-97 Phase I Environmental Site Assessment described herein was conducted by the undersigned, of R. W. Crandlemere & Associates, Inc. (CRANDLEMERE & ASSOCIATES). CRANDLEMERE & ASSOCIATES assessment consisted solely of the activities described in the Introduction of this report. The assessment was conducted in accordance with ASTM Standard Practice Designation E1527-97 and our Proposal No. 00-090. It is subject to the Limitations and Service Constraints described in the ASTM Standard and as provided in Appendix A.

Report Prepared by:

A handwritten signature in black ink, appearing to read "R. Wayne Crandlemere", with a long horizontal flourish extending to the right.

R. Wayne Crandlemere
President

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1.0 EXECUTIVE SUMMARY

Request: R. W. Crandlemere & Associates, Inc. (CRANDLEMERE & ASSOCIATES) was retained by Merritt & Harris, Inc. (the *user*) (see Appendix F for ASTM definitions of italicized words) to conduct an ASTM E1527-97 Phase I *Environmental Site Assessment* (ESA) of One, Two, Four and Five World Trade Center, located in the Borough of Manhattan, New York City, New York, 10081.

Response: On September 26, 27, 28 and 29 and October 10 and 11, 2000 Mr. R. Wayne Crandlemere of CRANDLEMERE & ASSOCIATES conducted a *Site visit* to identify *recognized environmental conditions* at the Site. In addition, CRANDLEMERE & ASSOCIATES' assessment included reconnaissance of adjacent properties, background research, and review of available local, state and federal regulatory records regarding the presence of petroleum products or hazardous materials at or in the vicinity of the Site.

Additional issues: Beyond the Scope of Work for the ASTM Standard for a Phase I Environmental Site Assessment, but as required by the *user*, summaries of readily available information pertaining to the presence of asbestos-containing building materials (ACBM) and documentation of the work done to abate ACBM was evaluated. No sampling or analysis was included and this is not to be interpreted as a complete asbestos survey. See Section 5.6.1 for a discussion of the findings of this evaluation.

Also beyond the Scope of Work for the ASTM Standard for a Phase I ESA, but as required by the *user*, a review of reports regarding electro-magnetic radiation related to the antenna tower on One World Trade Center was performed. This information is included in the condition assessment reports related to the One and Two World Trade Center, Twin Tower buildings. See those reports for information specific to those buildings and facility areas.

There were no other additional issues agreed to prior to or encountered during this assessment. No limitations or restrictions were encountered which, in our opinion, would significantly impact the findings of this assessment.

Summary of major findings and opinions: The Site is identified in City of New York Tax Assessor's records as 1 World Trade Center. The Site is bounded by West Street to the west, Vesey Street to the north, Church Street to the east and Liberty Street to the south. The Site is situated on the lower west side of the Borough of Manhattan in an area improved by mixed commercial, municipal and residential uses.

According to City Assessor's records, the Site is an irregular shaped parcel comprised of approximately 16 acres of land. The components of the World Trade Center which comprise the subject of this Phase I ESA include:

The Twin Towers: One and Two World Trade Center are two 110-story office tower buildings constructed in 1970 with a reported total gross area of 4,761,416 square feet in each tower. The first six stories are marble and granite lobbies, 7th & 8th

floors are mechanical equipment rooms and office space begins at the 9th floor. One World Trade Center contains a 360-foot welded steel tube antenna mast which rises 1,728 feet aboveground and is used by 14 television and radio networks as well as numerous other telecommunications companies;

The Plaza Buildings: Four and Five World Trade Center are two nine-story “L”-shaped buildings, constructed in 1977 and 1975, respectively. The first three floors of these buildings (the Concourse, Plaza and 3rd floor, all included in the Mall described below) contain retail space. The 2nd and 3rd floors also contain commercial and building service space. Floors 4 to 9 in both buildings are used for office space. Four World Trade Center has a reported total gross area of 462,738 square feet and Five World Trade Center has a reported total gross area of 581,238 square feet.

The Mall at the World Trade Center: The Mall consists of retail space (430,000 square feet) located on the Concourse level, the “Plaza”, and 3rd floor levels of Four and Five World Trade Center. The Mall was constructed between 1970 and 1977 with a reported total gross area of 614,901 square feet. The Concourse also exists as an underground link between the lobbies of six of the seven buildings in the complex, providing protection from inclement weather.

The Austin J. Tobin Plaza: The Plaza is an approximately five-acre area connecting the One, Two, Four and Five World Trade Center buildings as well as Three and Six World Trade Center, structures situated on the parcel identified by Tax Assessor’s records as the subject Site but are “out-of-scope” as discussed below. The Plaza includes large raised seasonal flowerbeds and benches and features a 130,000 square foot granite-paved quadrangle surrounding a central fountain and rotating sculpture.

The Subgrade: The Subgrade consists of six (6) basements of space located two levels below Church Street and one level below the Concourse with a reported total gross area of 2,656, 435 square feet. The Subgrade includes parking areas (633,575 square feet for approximately 1,431 vehicles only available to employees and tenants of the World Trade Center), storage areas, work shops, below-grade offices, truck docks and platforms, mechanical equipment rooms, refrigeration plant and vertical penetrations.

The World Trade Center PATH train terminal, and subway terminals that are part of the New York City Transit Authority subway system are also included in the Subgrade areas. These areas are not considered to part of the subject Site of this environmental assessment.

The World Trade Center Complex also includes three (3) buildings which are “out-of-scope” and not included in this Phase I ESA:

- Three World Trade Center, a 22-story New York Marriott World Trade Center Hotel located on the lot identified in Assessors Maps as the subject Site;
- Six World Trade Center, an eight-story office building known as the U.S. Customs House located on the lot identified in Assessor' Maps as the subject Site; and
- Seven World Trade Center, a 47-story office building located on an abutting lot to the north of the subject Site.

There are two main entrances to the Site. One is from the east off Church Street to the Plaza, between the Four and Five World Trade Center buildings, leading to the Plaza/mezzanine level of all the buildings. Escalators on the Plaza level lead down to the Concourse and lobby level of the Twin Towers and Mall, and to the 1st floor of the Plaza buildings. The second main entrance is from the west, off West Street leading to the lobby/Concourse level of One World Trade Center and the Marriott Hotel. The West Street entrance is one level below the Church Street entrance due to the sloping nature of the Site from east to west. There additionally are pedestrian access entrances off Vesey Street and through Two World Trade center off Liberty Street.

The buildings are serviced by the municipal water and sewer systems. The heat is provided by high-pressure steam distributed to the Complex via steam meter rooms located in the Subgrade. Hot water is also heated by the steam distribution system. Where required by certain tenants, supplemental HVAC is provided by electrically powered water cooled units.

The Complex utilizes Hudson River water in the buildings' condenser water system. The River Water Pump House is located subsurface, under the Rev. Monsignor John J. Kowsky Plaza, between the North Cove Yacht Harbor and Gateway Plaza, immediately adjacent to the Hudson River to the west of the Site. The river water is pumped to the Site and utilized as the medium by which supplemental air conditioning systems release their reject heat via heat exchangers. The river water is then returned to the Hudson River. This use of Hudson River water is permitted under a current NYDEC State Pollutant Discharge Elimination System (SPDES) Discharge Permit issued 5/1/99 with a 5/1/04 expiration date. The use of river water appears to be in compliance with the SPDES Permit and copies of required monitoring reports are maintained by Mr. Taylor. SPDES documents for inspections performed March 23, 1999 and March 13, 2000 showed "no reported permit limit exceedences" from April 1998 through March 2000 and that the system was operated within the Permit's acceptable parameters.

There are large mechanical equipment and refrigeration rooms located in the Subgrade. Additionally, there are eight (8) two-story high mechanical equipment and refrigeration rooms in One and Two World Trade Center and two mechanical equipment and refrigeration rooms located on the 9th floors of Four and Five World Trade Center. The mechanical equipment and refrigerator rooms contain water pumps for the hot and chilled water and condenser water system, ventilation ducts, exhaust fans and electric

distribution panels. The recently completed Due Diligence Physical Condition Survey report prepared by Merritt & Harris, Inc. should be reviewed for more details related to this physical description.

Electrical service is provided via underground cables run from the main substation located under Seven World Trade Center. There are six (6) emergency generators located on Level B-6 of the Subgrade and four (4) diesel powered generators located on the roof of Five World Trade Center which supply stand-by power to substations located in selected mechanical equipment and refrigeration rooms. There are an additional five (5) emergency generators located in the facility meeting tenant needs.

Stormwater drains from the roofs to building drains located in the Subgrade Level B-1 which, in turn, connects to a municipal storm drain that discharges into the Hudson River. There are sump pits located in Subgrade Level B-6 into which drain subsurface water and machinery water drips. There are water drips (e.g. condensate) that do not contain petroleum or other chemicals. The clear water is also discharged into the municipal storm water system.

As discussed in Section 5.0, there were substantial documents provided for review kept in three-ring binders of internal Port Authority records regarding hazardous substances stored, used and/or generated on-Site. The documents reviewed in Binder-V provided an extensive listing of materials stored on-Site. These materials are primarily stored in the main Maintenance Storage Rooms and Level B-1 of One World Trade Center, in small storage cages and shops all located in the Subgrade levels. All of the observed materials were apparently adequately stored with no signs of release that, in our opinion, would constitute a significant threat of release to the environment.

Hazardous wastes are primarily stored in a Hazardous Waste Room (Trailer) or within a chain-link fenced enclosure in truck dock area. Asbestos waste is stored in an enclosed dumpster in the truck dock area. Waste fluorescent lights are placed on pallets and plastic wrapped. They are stored in an area near the truck dock. Manifests are kept in Mr. Taylor's office. Based upon the information presented and reviewed as well as our observations of storage areas for both new materials and waste, *in our opinion*, there is little likelihood that these operations will significantly impact the subject Site.

The subject Site is listed as the location of many ASTs (see Sections 4.2.2 and 5.2), several RCRA licensed generators (see Section 4.2.1) and numerous minor Spills (see Section 4.2.2). As discussed in those Sections of our report, in our opinion, these listings should not indicate a current significant threat to on-Site conditions.

There was an off-Site release of petroleum from a LUST at the adjoining Fire Station property at 123 Liberty Street which did impact the subject Site. As discussed in Section 4.2.2, petroleum entered Ramp L of the World Trade Center on or about October 27, 1998. It is assumed that a major water leak resulting from a fire hydrant failure drove the diesel fuel that had been released at least 22 months previously toward the Site via an active subsurface train tunnel. The release within the World Trade Center has been

cleaned and there currently is no indication of the release. Based upon the fact that the release occurred off-Site, the source (LUST) has apparently been eliminated, the temporary apparent groundwater flow direction change caused by the hydrant leak is unlikely to re-occur, and that there does not appear to be any on-going impact, in our opinion, this historic release should not present a future significant risk to the conditions on the subject Site.

The Site appears to have been developed since at least the late 1700s with continued development and changes in buildings and uses continuing through the 1900s. There have been a number of uses identified that would usually be considered as having the potential to have an environmental impact on property. These include gas stations, a chemical company, a steam generating plant and other operations. However, as essentially all of the soil from the surface down approximately seventy-five feet, to or near bedrock, in our opinion the identified former uses are unlikely to have a significant impact on current conditions on-Site.

Other locations of *recognized environmental conditions* were identified within the ASTM search radius, as discussed in Section 4.2 of this report. Based upon information reviewed and presented in Section 4.2 of this report, it is our opinion, that the identified *recognized environmental conditions* on these properties are unlikely to impact the environmental integrity of the subject Site.

CRANDLEMERE & ASSOCIATES makes no representations regarding the quality of soil or groundwater on the Site. However, as no *recognized environmental conditions* were identified which, in our opinion, would be likely to significantly impact groundwater and/or soil conditions on the subject Site, no further assessment is recommended.

Documents related to the presence of asbestos-containing building materials (ACBM), an out-of-scope issue under the ASTM Standard, were reviewed and a summary of locations of ACBM known to be present is provided in Section 5.6.1 of this submission. The ACBM in the facility is managed under an Operations and Maintenance Program and appears to be adequately addressed.

Documents related to electromagnetic radiation, also an out-of-scope issued under the ASTM Standard, related to the roof-top transmission equipment in One World Trade Center and its' impact on the roof-top observation deck on Two World Trade Center were reviewed. Results of that review are included in separate reports presented in the condition assessment reports related to those individual structures.

2.0 INTRODUCTION

2.1 Purpose

This report presents the findings of an ASTM E1527-97 Phase I Environmental Site Assessment (ESA) of the *property* identified as One, Two, Four and Five World Trade Center, Borough of Manhattan, City of New York, New York 10081 (the Site). The purpose of this Phase I ESA, as defined by ASTM Standard Practice E1527-97, is to identify, to the extent feasibly pursuant to the process described in that Standard, *recognized environmental conditions* in connection with the *property*.

CRANDLEMERE & ASSOCIATES' findings are based on assessment of existing conditions at the Site and surrounding areas, local background research, evaluation of the Site's environmental setting and review of *publicly available, practically reviewable and reasonably ascertainable* records on file with local, state and federal regulatory agencies. The assessment was conducted on behalf of, and for the exclusive use of Merritt & Harris, Inc., the *user*, solely for the purposes of an environmental evaluation of the Site to permit the *user* to satisfy one of the requirements to qualify for the innocent landowner defense to CERCLA liability: that is, the practices that constitute "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice." This *report* may not be relied upon for any other purpose or by any other entity except as may be specifically noted.

It is our understanding that Merritt & Harris, Inc. is providing this Phase I ESA report in conjunction with, and as part of, a larger assessment of the *property* and has named The Port Authority of New York and New Jersey as an *additional user* as defined by the ASTM Standard E1527-97 Section 3.3.39. As an *additional user*, The Port Authority of New York and New Jersey may rely on the information presented in this Phase I ESA.

This report presents CRANDLEMERE & ASSOCIATES' professional opinion, and no warranty, expressed or implied, is made. The Port Authority of New York and New Jersey has the right to reproduce in full and provide copies of this report to interested parties. All reports, both verbal and written, are for the benefit of The Port Authority of New York and New Jersey and its' agents, employees, participates, and assigns.

2.2 Special Terms and Conditions

The assessment was conducted by R. W. Crandlemere & Associates, Inc. (CRANDLEMERE & ASSOCIATES) in accordance with ASTM E1527-97, the Scope of Work in our Proposal No. 00-090. This assessment is subject to the Limitations and Service Constraints described in the ASTM Standard and as provided in Appendix A. No use of this report is authorized except as subject to

those limitations and contractual agreements. Any unauthorized or so called “third party” user agrees to those limitations and agreements even if they do not have copies of those documents. Appendix A includes Limitations and Service Constraints as well as certain non-scope considerations applicable to this work. Appendices B and C include the Site Assessment Summary and list of Information Sources, respectively.

2.3 Limitations and Exceptions of Assessment

There were exceptions or limitations to Standard ASTM 1527-97 encountered during this Project. There was a lack of *reasonably ascertainable* sources that provide 5-year interval Site use history back to 1940 and/or the *property's obvious* first developed use, whichever is earlier. As there does not appear to be any significant gaps in the history of usage of the Site back to approximately 1782, in our opinion, the lack of 5-year intervals of Site history should not significantly limit this assessment. Additionally, as the buildings and paved areas cover essentially the entire developed portion of the Site, no observation of surficial soils was possible in those areas. As there is substantial subsurface structure with tons of soil excavated prior to construction of the World Trade Center buildings, in our opinion, these limitations should not significantly limit the findings of this assessment.

2.4 Limiting Conditions and Methodology Used

No other limitations imposed by physical obstructions such as adjacent bodies of water, or other limiting conditions were encountered during the assessment. The perimeter of the developed portion of the Site *property* was walked and the exterior of the buildings was inspected prior to the inspection of the interior of the buildings.

3.0 SITE DESCRIPTION

3.1 Location and Legal Description

According to information obtained from the City of New York Tax Assessors' office, the Site is identified as 1 World Trade Center, a wholly tax exempt *property*, further designated on City of New York Tax Assessor's Maps as Block #58, Lot #1.

The owner of the subject Site is identified in City Tax Assessor's records as The Port of New York Authority.

3.2 Site and Vicinity Characteristics

The Site is located in a dense urban area with mixed commercial, residential and municipal property uses. The Site, according to Tax Assessor's records, is comprised of approximately 16 acres of land, previously encompassing twelve (12) city blocks, improved by the World Trade Center, one of the world's largest commercial complexes. Situated in the lower west side of the Borough of Manhattan in the Financial District, the Site is bounded by West Street to the west, Vesey Street to the north, Church Street to the east and Liberty Street to the south.

A Site Locus Map (Topographic Map), Site Plans, and Site Vicinity Map are provided as Figures 1, 2A & 2B, and 3, respectively. Appendix D includes Photographs.

There are three (3) buildings currently or previously part of the World Trade Center Complex which are not included in this environmental assessment. Shown on Figure 2A, they are:

- Three World Trade Center, a 22-story New York Marriott World Trade Center Hotel (Photo #2) located on the parcel identified in City Assessor's records as the subject Site, at the intersection of West and Liberty Streets;
- Six World Trade Center, an eight-story office building known as the U.S. Customs House (Photo #5) located on the parcel identified in City Assessor's records as the subject Site, at the intersection of Vesey and West Streets; and
- Seven World Trade Center, a 47-story office building located on Assessor's Block 84, Lot 36 across Vesey Street to the north of the subject Site.

Seven World Trade Center is an abutter to the subject Site. For the purposes of this environmental assessment, the operations at Three and Six World Trade Center will be considered abutters to the subject Site.

According to City Tax Assessor's records and observations during our Site visit, current property uses on other abutting and immediate area parcels (see Figure 3) are described as follows (Note: The street addresses listed in Assessor's records and those noted on Figure 3 as prepared by JP Morgan differ in some cases. The street numbers and name of the building shown in parentheses correspond to those shown on Figure 3.):

North and northeast across Vesey Street:

140 West Street; Block 84, Lot 1; owned by the New York Telephone Co. (Bell Atlantic), improved by a 29-story office building;

Washington Street intersects;

7 World Trade Center (Salomon Brothers), Block 84, Lot 36; discussed above;

West Broadway intersects;

90 Church Street; Block 86, Lot 1; owned by the U.S. Government, a 15-story office building;

Church Street intersects;

22 Barclay Street; Block 88, Lot 11; owned by St. Peters Church, improved by a two-story religious facility; and

28 (30) Vesey Street; Block 88, Lot 10; owned by Greystone Properties, improved by an 18-story office building;

Vesey & Church Street intersection;

East and southeast across Church Street:

209 Broadway; Block 87, Lot 1; owned by St. Paul's P.E. Church (St. Paul's Chapel) & CNY/MTA, occupied by a one-story building (St. Paul's Chapel and Cemetery);

Fulton Street intersects;

20 Dey Street; Block 80, Lot 4; owned by The Millenium Hilton, improved by a 58-story hotel, "Luxury Type" built after 1960;

Dey Street intersects;

19 (21) Church Street; Block 63, Lot 6; owned by Century 21 Inc., improved by a 3-story department store building; and

Cortland Street intersects; and

135 Broadway (1 Liberty Plaza), Block 62, Lot 1; owned by WEP One Liberty Plaza, improved by a 54-story office building.

South and southeast across Liberty Street:

148 Washington Street (1 World Plaza), Block 56, Lot 15; owned by the 140 Liberty Street Associates, improved by a licensed parking lot;

5 Albany Street; Block 54, Lot 1; (1 Bankers Trust Plaza/130 Liberty Street), owned by Bankers Trust Co., improved by a 39-story office building;

Greenwich Street intersects;

141 Greenwich Street; Block 52, Lot 22; (also 124 Liberty Street), owned by the City Fire Department, improved by a 3-story fire house building;

120 Liberty Street; Block 52, Lot 21; owned by Samson Matawan Partners, improved by a 13-story apartment building converted to co-op from loft/warehouse use;

114-118 Liberty Street; Block 52, Lot 25; improved by a mixed use, commercial (2 floors) and residential (7 floors) building;

112 Liberty Street; Block 52, Lot 16; improved a mixed use commercial (2 floors) and residential (~3 floors) building;

112 Trinity Place; Block 52, Lot 30; owned by 111 Cedar Street Co., improved by a 5-story mixed commercial use building; and

Trinity Place and Liberty Street intersection.

Northwest and west across West Street

Note: Assessor's records indicate that the land across West Street to the west of the subject Site previously was broken into numerous smaller lots that, like those that previously existed prior to construction of The World Trade Center, have been combined. The Assessor's maps still show the smaller lots which no longer are relevant to current uses. The current users, from north to south, are:

5 World Financial Center;

Intersection of West and Vesey Streets;

3 World Financial Center American Express;

Winter Garden;

2 World Financial Center;

North Cove Yacht Harbor and Manhattan Yacht Club behind 3 World Financial Center;

Rev. Monsignor John J. Kowsky Plaza;

Intersection of Liberty and West Streets;

1 World Financial Center Oppenheimer Tower; and

Gateway Plaza behind 1 World Financial Center.

The World Trade Center River Water Pump Station is located entirely subsurface between the North Cove Yacht Harbor and Gateway Plaza adjacent to the Hudson River and under the Rev. Monsignor John J. Kowsky Plaza. The operations of the River Water Pump Station, for the purposes of this assessment, are included as on-Site operations even though it is physically located across West Street to the west of the lot designated in the City Assessor's records as The World Trade Center.

In summary, the area is well developed with a mix of commercial and municipal properties with some residential units. There are current uses on neighboring properties identified in Section 4.2.2 that use, store and/or produce hazardous materials. *In our opinion*, none of those locations should be a significant threat to the environmental conditions on the subject Site.

3.3 Descriptions of Structures, Roads, Other Improvements on the Site

According to City Tax Assessor's records, the Site is an irregular shaped parcel of land comprised of approximately 16 acres of land. The recently completed Due Diligence Physical Condition Survey report prepared by Merritt & Harris, Inc. should be reviewed for more details related to this physical description.

The components of the World Trade Center Complex (Photos #6, 7 & 8) which comprise the subject of this Phase I ESA are:

The Twin Towers: One and Two World Trade Center, two 110-story office tower buildings constructed in 1970 with a reported total gross area of 4,761,416 square feet in each tower (Photo #1). The Twin Towers rise over 1,350 feet, making them the tallest buildings in New York City. The first six stories are marble and granite lobbies (Photo #9), 7th & 8th floors are mechanical equipment rooms and office space begins at the 9th floor. One World Trade Center (the North Tower) contains a 360-foot welded steel

tube antenna mast attached to its' roof which rises 1,728 feet aboveground and is used by 14 television and radio networks as well as numerous other telecommunications companies broadcasting in the New York metropolitan area;

The Plaza Buildings: Four (the Southeast Plaza Building; Photo #3) and Five (the Northeast Plaza Building; Photo#4) World Trade Center are two nine-story "L"-shaped buildings, constructed in 1977 and 1975, respectively. The first three floors of these buildings (the Concourse, Plaza and third floor, all included in the Mall described below) contain retail space. The 2nd and 3rd floors also contain commercial and building service space. Floors 4 to 9 in both buildings are used for office space. Four World Trade Center has a reported total gross area of 462,738 square feet and Five World Trade Center has a reported total gross area of 581,238 square feet.

The Mall at the World Trade Center: The Mall consists of retail space (430,000 square feet) located on the Concourse level (Photo #10), the "Plaza", and 3rd floor levels of Four and Five World Trade Center. The Mall was constructed between 1970 and 1977 with a reported total gross area of 614,901 square feet. The Mall is a large indoor shopping center occupied by over 75 retail operations. The Concourse also exists as an underground link between the lobbies of six of the seven buildings in the complex, providing protection from inclement weather.

The Austin J. Tobin Plaza: There is an approximately five-acre Plaza area connecting the One, Two, Three, Four, Five and Six World Trade Center buildings (Photos #2, 3, 4 & 5). (As previously discussed, for the purposes of this environmental assessment, Three and Six World Trade Center are considered abutters to the subject Site.) The Plaza includes large raised seasonal flowerbeds and public benches and features a 130,000 square foot granite-paved quadrangle surrounding a central fountain and rotating sculpture. The Plaza is bordered by restaurants, food kiosks, and public seating areas.

The Subgrade: There are six (6) basements of space located two levels below the level of Church Street and one level below the Concourse with a reported total gross area of 2,656,435 square feet. The Subgrade levels are identified as B-1 through B-6 with B-1 being the 1st level below the Concourse and B-6 being the lowest and 6th level below. The Subgrade includes parking areas [633,575 square feet for approximately 1,431 vehicles only available to employees and tenants of the World Trade Center (Photo #13)], storage areas, work shops, below-grade offices, truck docks and platforms, mechanical equipment rooms, refrigeration plant and vertical penetrations.

The World Trade Center Port Authority Trans Hudson (PATH) Corporation train terminal, a regional rapid transit system, and subway terminals that are part of the New York City Transit Authority subway system are also located in the Subgrade. However, these areas are not considered to be part of the subject Site of this environmental assessment.

The Subgrade was constructed after approximately 1,200,000 cubic yards of fill were removed from the Site. The fill was placed into the Hudson River and also used to create a large portion of Battery Park City complex on which the World Financial Center was constructed to the west of the Site.

The Subgrade is accessible by passenger and freight elevators and stairwells from the One, Two, Four and Five World Trade Center buildings (the Site) as well as the out-of-scope U.S. Customs House and Marriott Hotel. The Subgrade is also accessed via the PATH train terminal, the New York City Transit Authority subway terminals and vehicle access ramps.

The exterior walls of the Twin Towers consist of reflective floor-to-ceiling windows between anodized aluminum and steel columns. The exterior of Four and Five World Trade Center consists of black-anodized aluminum and glass. The buildings have flat roofs.

There are loading facilities accessed off Barclay Street via ramps leading to the Subgrade. The loading docks consist of 40 bays, seven (7) of which are equipped with trash compactors. None of the bays is equipped with hydraulic lifts.

The City of New York provides domestic water to the World Trade Center from the water main on Greenwich Street to the Subgrade of the Complex.

The Site utilizes a gravity sanitary system which connects on Subgrade Level B-1 to the New York City sewer system.

The heat for the World Trade Complex is provided by high-pressure steam that arrives at the Site via underground pipes and is distributed to the Complex via steam meter rooms located in the Subgrade.

Water pumped from the Hudson River via the River Water Pump Station [located subsurface along the Hudson River between the North Cove Yacht Harbor and Gateway Plaza and under the Rev. Monsignor John J. Kowsky Plaza (Photos #11 & 12)] supplies the Complex with condenser water via heat exchangers. As previously noted, while physically located across West Street from the lot designated by the City Assessor's as the subject *property*, the operation of the River Water Pump Station is integral to The World Trade Center facility and included as an on-Site use in this assessment. The cooling system for the

Complex is based upon a chilled water and condenser water circuit system, supplied to tenants as needed. The common areas of the building, including lobbies, the observation deck and elevator mechanical rooms, are serviced by centrally located air conditioning systems. Where required by certain tenants, supplemental HVAC is provided by electrically powered water cooled units.

There are two main entrances to the Site. One is from the east off Church Street to the Plaza, between the Four and Five World Trade Center buildings, leading to the Plaza/mezzanine level of all the buildings. Escalators on the Plaza level lead down to the Concourse and lobby level of the Twin Towers and Mall, and to the 1st floor of the Plaza buildings. The second main entrance is from the west, off West Street leading to the lobby/Concourse level of One World Trade Center and the Marriott Hotel. The West Street entrance is one level below the Church Street entrance due to the sloping nature of the Site from east to west. There additionally are pedestrian access entrances off Vesey Street and through Two World Trade Center off Liberty Street.

There are large mechanical equipment and refrigeration rooms located in the Subgrade. Additionally, there are eight (8) two-story high mechanical equipment and refrigeration rooms in One and Two World Trade Center and two mechanical equipment and refrigeration rooms located on the 9th floors of Four and Five World Trade Center. The mechanical equipment and refrigerator rooms (16 in total) contain water pumps for the hot and chilled water and condenser water system, ventilation ducts, exhaust fans and electric distribution panels.

Electrical service is generated by the Power Authority of the State of New York and distributed via underground cables run by Consolidated Edison (ConEd) from the main substation located on Barclay Street and West Broadway under Seven World Trade Center. There are six (6) diesel powered emergency generators located on level B-6 of the Subgrade. There are an additional five (5) emergency generators located in the facility meeting tenant needs. Certain tenants utilize four (4) diesel powered generators located on the roof of Five World Trade Center which supply stand-by power to substations located in selected mechanical equipment and refrigeration rooms. Mr. Phillip Taylor, Environmental Coordinator for the *owner*, reported there are a total of fifteen (15) diesel powered emergency generators on-Site.

Storm water flows to sewers in the streets and is ultimately discharged to the harbor. Highway department data indicates that there exist two 96" diameter outfall discharges to the north (Vesey Street) and to the south (Rector Place North) at the Pierhead line of Battery Park City. Storm water from the Trade Center Complex and the adjoining streets flows to these two municipal sewer mains. Limited survey information shows 2 – 24" storm sewer connections exiting the area of 5 World Trade Center to the north in Vesey Street.

Sanitary waste flows to municipal sewers in the streets. Multiple house traps were observed in the Subgrade spaces, but full connection data was not available. Highway department data indicates that a 78" intercepting sewer main runs from north to south in the center of West Street.

The two metered 12" main water services at the north (Barclay Street) and south (Liberty Street) ends of the complex are cross connected through the subgrade pipe tunnel at the B-1 level. There are also two smaller services, a 1" service which reportedly serves a water cooled condenser for the Windows on the World restaurant (reduced service from a 6" main), and a service at the remote pump station in Battery Park City. A 4" service located along West Street within the slurry wall enclosure at level B-2 is reportedly used for the hotel. Limited survey information which was available indicates that both a 20" low pressure water main which services a fire hydrant and a 16" high pressure water main exist in Liberty Street.

High pressure utility company (Consolidated Edison) steam enters the B-1 level of the Subgrade at Barclay and Liberty Street and is cross connected through a pipe tunnel that runs the length of the complex. There is a main connection in the center of the line which supplies the main steam room on the B-6 level. Steam from this main is metered by Con Edison and supplied to the hotel and to the Custom House, as well as to the other buildings of the World Trade Center Complex.

Gas is supplied from utility company mains in Vesey and Liberty Streets. There exist 2 gas meter rooms at the B-1 level for metered distribution to tenants who use gas. The central plant and common areas of the World Trade Center do not utilize natural gas.

The World Trade Center has several locations where telecommunication lines enter the building, as well as broadcast and receiving antennae on the roofs which are used for telecommunication services. Fiber optic lines are available throughout the complex, and connection to the Port Authority's teleport satellite communication center in Staten Island are also available.

There is a sprinkler system utilizing four fire pumps and four fire reserve tanks located in One World Trade Center and three each in Two World Trade Center. In each tower, there are one 5,000-gallon sprinkler/standpipe and one 10,000-gallon tank on the 110th floor and one 5,000-gallon sprinkler/standpipe tank on the 42nd floors. Additional 5,000-gallon tanks are on the 75th floor mechanical equipment and refrigeration room in each tower.

There are a total 240 elevators and 63 escalators providing access to the Twin Towers, Plaza Buildings, Mall and Subgrade areas of the World Trade Center Complex. It was reported that all except two (2) of the active elevators are

electro/mechanical. Two (2) in-service elevators and one (1) out-of-service elevator are hydraulic.

Telecommunications services are provided from multiple vendors including Bell Atlantic who maintains an on-Site switching station. The antenna mast and other transmission devices located on the roof of One World Trade Center, the North Tower building, are discussed in Section 5.6.2.

There are numerous covenants, conditions, easements and agreements of record related to the *property*. A number of these are listed in Due Diligence Documents reviewed in a file titled Legal Information-Title Commitment; Schedule B. These covenants, conditions, easements, and agreements cover numerous issues related to the water use, subways and other issues and are not discussed in detail in this assessment.

There are many aboveground storage tanks (ASTs) located on-Site which are discussed in Sections 4.2.2 and 5.2.

Other hazardous materials identified on-Site are discussed in Section 5.1.

3.4 User Provided Information

Mr. Phillip Taylor, Environmental Coordinator, World Trade Center Operations and Maintenance Management, The Port Authority of New York and New Jersey (the *owner*) provided information regarding a release from a LUST on an abutting property that is discussed in Section 4.2.2 of this report. Additionally, Mr. Taylor provided information regarding on-Site ASTs, hazardous waste generation, hazardous material storage, waste management, environmental programs, safety training, storage inventory, permits and community-right-to know, all of which are discussed in appropriate sections of the assessment report. In general, it was reported that there are no environmentally related consent orders or other violations of environmental regulations including the permitted use of the Hudson River water.

The *user* of this ESA did not provide the *preparer* of this *report* with any other information indicating the presence of *environmental liens* on the *property*, with any *specialized knowledge* or *experience* of the *user* material to *recognized environmental conditions* in connection with the *property* nor with any *actual knowledge* that the purchase price of the *property* is significantly less than the purchase price of comparable properties pursuant to Section 5 of the Standard.

The ASTM E1527-97 Standard does not include checking title records for environmental liens. The Standard indicates that the *user* may choose to check or engage a title company or title professional to check reasonably ascertainable recorded land title records for environmental liens currently recorded against the

property. If such a search is conducted, it is the *user's* responsibility to notify the environmental professional of the results of that search.

The *owner* provided the *preparer* with the numerous documents regarding the Site which are identified in Appendix B as information sources. Some of these more pertinent documents are included as appendixes to this assessment report. The others are in the custody of Mr. Taylor and/or The Port Authority of New York and New Jersey and collectively are known as the Due Diligence Documents. Information contained in these Documents is relied upon in this assessment to the extent allowed by the ASTM Standard.

3.5 Current and Past Uses of the *Property*

The current and historic use of the subject Site was compiled from a variety of sources including observations during our Site visits, store listings, City Assessor's records, Environmental FirstSearch Report, Sanborn Fire Insurance maps (1894, 1923, 1950, 1980, 1991, 1992, 1993, 1995 and 1996), City Atlases and maps (1782, 1807-1811, 1832, 1933, 1834, 1835, 1836, 1852, 1855, 1857-62, 1874, 1875, 1926 and 1932) and an aerial photograph (1924).

The following is a partial history of the Site and the immediate vicinity, as revealed in our review of these *readily available and reasonably ascertainable* sources. Copies of the Sanborn maps are included in Appendix G of this submission.

Year	Source	Information
Present	Site Visit	Vesey Street bounds the land comprising the subject Site to the north, Church Street to the east, Liberty Street to the south and West Street to the west. The land that makes up the Site currently is improved with six (6) buildings of which four (4) are the subject of this assessment. The buildings that are the subject of this assessment include the two 110-story towers, One and Two World Trade Center (WTC), the North and South Towers respectively, and the two 5-story L-shaped office buildings designated Four and Five WTC or the Southeast and Northeast Plaza Buildings respectively. The other two (2) buildings considered abutters for this assessment; Three and Six WTC; are the Marriott Hotel and the U. S. Customs Building. In addition to the Plaza level and six (6) buildings that are above grade, there is are six (6) sub-grade levels that include a retail Concourse level, mechanical spaces, truck loading docks, parking garage, and the PATH train and subway stations. The store listing and observed uses include a book store, banks, airlines, etc. on the Plaza level; numerous retail outlets including restaurants, banks, clothing stores and specialty shops on the Concourse level; and primarily commercial office use on the upper floors of the four (4) buildings. Some of the major Concourse level tenants are show on the Site Plan, Concourse level Figure 2B.
1996 – 1980	Sanborn Maps dated 1996, 1995, 1993, 1992, 1991 & 1980	Shows the Site essentially as it appears today.

1950	Sanborn Map	<p>Shows the Site prior to demolition of the twelve (12) city blocks that previously comprised the area that now is the subject Site. These blocks were created by the crossing of the subject Site by Fulton, Dey and Cortlandt (different spelling) Streets running east/west and Washington and Greenwich Streets running north/south. The former intersection of Dey and Washington Streets was called Telegram Square. Washington Market, an apparent produce market, covered the northwest block then bounded by Vesey, Washington, Fulton and West Streets. The following representative businesses, located on what is now the subject Site, were shown:</p> <ul style="list-style-type: none"> 195-199 Washington St. – candy mfg.; 35 – 37 Vesey St. – bank; 125 – 124 West St. – gasoline station; 119 – 122 West St. – filling station; 83 – 87 Dey St. – auto service; 73 – 81 Dey St. – chemical company; and 113 Liberty St. – fire station. <p>The remainder of the numerous buildings are mostly noted as stores and/or flats with restaurants and a billiards parlor noted. The area surrounding the Site is comprised of similar uses including:</p> <ul style="list-style-type: none"> 139 – 146 West St. – NY Telephone Bldg.; and 36 – 56 Vesey St. – P.O. & Federal Bldg. <p>The Hudson River is shown immediately adjacent to Marginal Street which is shown immediately west of and parallel to West Street.</p>
1932 – 1926	1932 & 1926 NYC Bromley – Manhattan Atlas, Vol. 1, Plates 1+5	<p>The Site is mostly as described from the 1950 Sanborn Map. Washington Market was present. Telegram Square is noted as described in 1950. The Hudson Manhattan RR Terminal is shown on-Site along with Telegram Sq. Garage and a fire station. The Hudson and Manhattan RR Tunnel is shown running under Cortland Street in an area now on-Site. The cemetery and St. Paul's P. E. Church is shown abutting the Site across Church St. as today. The surrounding uses appear consistent with those described from the 1950 Sanborn Map including the NY Telephone Company building across Vesey St. to the northwest. The P.O. and Federal Building across Vesey St. to the northeast is not shown and the area is primarily lofts and stores.</p>

1923 & 1924	1923 Sanborn & 1924 aerial photo	Washington Market, noted as “re-modeled 1916,” is shown as on the 1950 Sanborn. The Hudson River is shown, as noted, apparently immediately adjacent to Marginal Street which is shown immediately to the west and parallel to West Street. The Sanborn Map copy is of relatively poor quality and the companies occupying the buildings are not clear, however, the buildings appear essentially the same as on the 1950 Sanborn with a few apparent open areas without buildings. One such open area is noted as “wagon yard.” The west end of Dey Street from numbers 57 through 89 (later designated Telegram Square) is designated Globe Square.
1894	1894 Sanborn	Washington Market is shown as noted above. The buildings on-Site appear similar to those described between 1923 to 1950 and include hotels, a bakery, and a NY Steam Boiler Company House.
1875	1875 NYC Robinson Atlas, Plate 2	Washington Market shown as described above. The Site is shown as approximately adjacent to Piers 12 through 15 on the Hudson River. St. Paul’s Epis. Church is shown essentially as today. The Site has hotels, a bakery, dry goods store, fire station, NY Steam Heating Co. and S. M. Bixby & Co. Blacking shown among the numerous stores and flats on-Site and in the area.
1874	1874 E. L. Viele Topographical Atlas, Plate 2	The map shows that the majority of the current subject Site including the entire portion of the Site to the west of Greenwich Street as “Made Land.” The land to the east of Church Street is shown as “Meadow Land.” The land from Church Street west nearly to Greenwich Street is shown as sloping and was probably the edge of uplands adjoining either marsh along or at the Hudson River itself. The map does not depict buildings.
1857-1862	1857-62 NYC W. Perris Atlas, Plates 3 & 7	Washington Market is shown on-Site as described above. Banks and residences are noted on-site with numerous other stores and flats shown. The adjoining NY Telephone Building across Vesey Street is not shown and that location was covered with numerous smaller buildings. St. Paul’s Church is shown adjoining the Site across Church Street as described above. The street configurations shown are somewhat different with Church Street beginning at Fulton Street extending northward and West Broadway not shown and the areas likewise covered with small buildings.

1855	1855 W. Perris Atlas, Plates E, F, 2 & 3	Washington Market is shown as described above. The Site has numerous hotels, banks and other small commercial and/or residential buildings.
1852	1852 Dripps Manhattan Atlas	Washington Market and St. Paul's Church are shown as described above. There are some apparent open land areas in the center of the city blocks behind the buildings. There are hotels shown on-Site.
1836	1836 J. H. Colton Map	Few buildings are shown on the map. St. Paul's Church is shown. The street configuration is essentially as described above between 1852 and 1950.
1832-1834	NYC Maps: 1833 + 1834 J. Disturnell; 1835 P. Desobry; 1835 D. H. Burr; 1833 H. Phelps; 1832 S. DeWitt; & 1832 W. Hooker	Essentially shows the Site and surrounding area as described in 1836.
1807-1811	NYC Commissioners Maps, Sheet 1	St. Paul's Church is shown. The maps show the streets essentially as described from the early 1800s through 1950. Fulton Street is shown as then named Partition Street. The map shows little detail.
1782	1782 British Head Quarters Map of NYC	The map shows the area of the City as developed with roads, while not named on the map, that appear to correspond with Vesey, Broadway, Fulton (Partition), Dey, Cortland (Cortlandt), and Liberty Streets. Few buildings are shown. A church and cemetery appear to be located where St. Paul's Church and cemetery currently stands. There is a fortification, possibly a small fort or a redoubt, shown located apparently on what is now part of the subject Site. The scale of the map is not clear and there may not be as much land to the west; the banks of the Hudson River may have extended onto the current subject Site.

Earlier Farm Maps of Manhattan do not show the area of the subject Site. In summary, the Site appears to have been developed since at least the late 1700s and probably earlier, with continued development and changes in buildings and uses continuing through the 1900s. There is little remaining on-Site dating from prior to the construction of the current improvements. A small section of former subway tunnel has been incorporated into a subsurface access ramp (Photo #14)

and a large subsurface room remains that apparently was an electric generating or power plant probably associated with the subway system. The large room is currently essentially empty with no apparent generating equipment observed. There have been a number uses identified that would usually be considered as having the potential to have an environmental impact on property. These include gas stations, a chemical company, a steam generating plant and other operations. However, much of the soil from the surface down (six stories or approximately seventy-five feet) to or near bedrock, was excavated prior to construction of the current improvements. Therefore, in our opinion, the identified former uses are unlikely to have a significant impact on current conditions on-Site.

3.6 Current and Past Uses of Adjoining Properties and the Surrounding Area

Current neighboring property uses are discussed in Section 3.2 and historic uses are discussed in Section 3.5 above. The major abutting and area operations are shown on the Site Plan, Site Vicinity Map and Figure 3. As the entire substructure of the improvements on-Site is enclosed within a slurry-wall type substructure, in our opinion, there is little likelihood that any off-Site potential sources of contamination could enter the subject *property* without being observed. One such encroachment of oil from an adjoining LUST at the Fire Station at 124 Liberty Street was observed, see Section 4.2.2 for a discussion of this incident. No other such encroachment of contamination has been reported and, as discussed in Section 4.2.2, in our opinion, the current and historic uses on adjoining properties and in the area have little likelihood of significantly impacting the subject Site.

4.0 RECORDS REVIEW

4.1 Physical Setting Source

The U.S.G.S. 7.5 Minute Topographic Map of the Jersey City, NJ - NY Quadrangle (dated 1981) was reviewed and a portion of that map is included in this submission Section as Figure 1. According to the topographic map, the Site is located at an approximate elevation of approximately 20 feet above mean high water.

4.1.1 Geology and Hydrogeology

Geology, depth to groundwater and direction of groundwater flow on the subject Site was not determined in this assessment. The United States Department of Agriculture, Soil Conservation Service was contacted and they report that no Soil Survey has been prepared that would cover Manhattan. In our opinion, the area of the Site would be classified as Urban Land. Urban Land consists of areas where the soils have been altered or obscured by urban works and structures. Buildings, industrial areas, paved areas and railroad yards cover more than 75% of the surface. They are usually located along major highways and in business centers. The properties and characteristics of this unit are so variable that on-site investigation is needed to determine the limitations and suitabilities for specified uses.

As noted in Section 3.5, an 1874 Topographical Map reviewed showed much of the Site to be "Made Land" indicating that it had been filled marsh or river sometime prior to that date. Also, as noted in that Section and in Section 3.3, approximately 1,200,000 cubic yards of fill were removed from the Site during construction of the current improvements, presumably including the pre-1874 fill material.

The Roadside Geology of New York by Bradford B. Van Diver (Mountain Press Publishing Company, Missoula, MT, 1997) indicates Manhattan Island is part of an area known as the New England Uplands and a Subprovince known as the Manhattan Prong.

Depth to groundwater on the subject Site was not determined during this assessment. Documents reviewed regarding a LUST at the adjoining Fire Station at 124 Liberty Street report depth to groundwater ranging from about 13 to nearly 17 feet below surface level. Based upon that information and local topography, we estimate groundwater may be between 13 and 30 feet below surface level on-Site. The subsurface portion of the development on-Site covers nearly the entire Site down 6 stories to approximately 75 feet and is enclosed within a slurry wall construction. Typically groundwater flow direction mimics the

surrounding topography and would be expected to generally flow in a southwesterly direction toward and with the Hudson River. However, due to the subsurface construction on-Site and in the local area including the slurry wall, subsurface train and subway tunnels, vehicle access to subsurface parking and truck loading docks on-Site, and utilities, it is presumed that groundwater flow has been significantly changed from natural conditions and may additionally be tidally influenced.

According to the Environmental FirstSearch Report, the Flood Insurance Rating Map (FIRM) Panel 33604970054B shows the Site is situated within a 100-Year flood plain. The Hudson River is situated approximately 500 feet west of the subject Site (see Figure 1).

4.1.2 Sensitive Environmental Receptors

The Site is located in a dense urban area improved by buildings connected to municipal water and sewer systems. With the exception of the Beekman Hospital located approximately 0.29 mile southeast of the Site, the DataMap Environmental FirstSearch Report does not indicate any sensitive receptors, Federal Wells, Federal land use or State wells within one-half mile of the subject Site.

4.2 Regulatory Review

A search of Federal, State, and local records was conducted on September 12, 2000 utilizing DataMap Technology Corporation, Environmental FirstSearch™ Report (DataMap), a computer database of locations with *recognized environmental conditions*. A search of additional records was conducted October 3, 2000 also utilizing DataMap Technology Corporation. Pertinent sections of those reports are included in Appendix E of this submission.

The following lists were searched:

- National Priority List (NPL)
- Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)
- RCRA NON-CORRACTS TSD-Treatment, Storage and Disposal
- RCRA CORRACTS Facilities List
- RCRA Hazardous Waste Generators listing
- Emergency Response Notification List (ERNS)
- National Pollutant Discharge Elimination System (NPDES) Permits*
- State Sites
- Spill Sites – 1990*
- Solid Waste Landfills (SWL)
- State Permits*
- Registered Underground Storage Tanks & Aboveground Storage Tanks

(USTs & ASTs)
 Leaking USTs (LUST)
 State Wells
 Floodplains
 Receptors
 Releases

An asterisk (*) indicates the list was searched and reported in the October 3, 2000 Environmental FirstSearch Report. All other lists were searched and reported in the September 12, 2000 Environmental FirstSearch Report.

As allowed by the ASTM Standard because of the dense urban area surrounding the Site, the search radius was reduced from the normal 1.0-mile to 0.5-mile for Federal and State priority listings and from the normal 0.5-mile to 0.25-mile for State non-priority listings. The following is a result of our review of those locations identified within the ASTM search radius of the subject Site.

4.2.1 Federal Regulatory Review

A search of the National Priority List (NPL) maintained by the U.S. Environmental Protection Agency (EPA) for locations within a 0.5-mile radius of the Site revealed no locations.

A search of the CERCLIS List maintained by the U.S. EPA for locations within a 0.25-mile radius of the Site revealed the following listings:

- 6 World Trade Center Room 114, located in the US Customs Building on the corner of West and Vesey Streets (not specifically included as part of the subject Site, however, the uses of this building are considered as on-Site uses due to the physical presence of the building on the lot that comprises the subject Site.), is listed as:

RCRAGN #NY1470057802, identified as US Customs House, 6 World Trade Center Basement, licensed to generate 100-1000 kg/month of hazardous waste with no violations listed;

RCRAGN #NYD-08892510 identified as US Customs Laboratory, 6 World Trade Center, Room 867, licensed to generate 100-1000 kg/month of hazardous waste with a violation dated 8/26/94 which was a general administrative violations usually pertaining to paperwork;

CERCLIS #NY4470002433, identified as US Customs SCC/Merchandise Control, 6 World Trade Center, Room 114; listed with a Discovery period ending 1/10/89 and a Preliminary

assessment period ending 9/27/89. A status of No Further Remedial Action Planned (NFRAP) has been assigned by the EPA for this case.

Under the Freedom of Information Act, a written request was made to review records maintained by the U.S. EPA Region 2 at 290 Broadway, NY, NY. The Freedom of Information (FOI) request was assigned Request Identification Number 02-RIN-02381-00 on September 28, 2000. As of the date of the issuance of this report, we have not received a response to this FOI request.

Based upon the NFRAP status, in our opinion, it is unlikely this listing indicates a significant threat to groundwater and/or soil on the subject Site. However, as no response has been received to date to our FOI request, this status cannot yet be confirmed.

- 55 Liberty Street, Radium Luminous Materials Co., located approximately 0.14 mile southeast of the subject Site is listed as having a State funded Discovery period ending 5/5/92 and an EPA Funded Preliminary Assessment ending 2/11/93 with No Further Remedial Action Planned, assigned status NFRAP. A written FOI request was made for a review of records maintained by the U.S. EPA Region 2 along with the Six World Trade Center listing and has the same Request Identification Number (02-RIN-02381-00). As of the date of issuance of this report, we have not received a response to this FOI request.

Based upon the NFRAP status, distance, estimated groundwater flow direction, and the dense nature of subsurface structures, in our opinion, it is unlikely this listing indicates a significant threat to groundwater and/or soil on the subject Site. However, as no response has been received to date to our FOI request, this status cannot yet be confirmed.

A search of the RCRA TSD maintained by the U.S. EPA for locations within 0.25-mile of the Site revealed no properties listed.

A search of the RCRA CORRACTS facilities list maintained by the U.S. EPA for locations within 0.5-mile of the Site revealed no properties listed.

A search of the RCRA Generator List maintained by the U.S. EPA for locations including the Site and its' abutters revealed the following listings. Mr. Phillip Taylor reported that his office handles the majority of hazardous waste generated on-Site. His comments regarding each RCRA Generator are included in brackets below:

On-Site listings:

- 1 World Trade Center 83rd Floor, Chemical Bank, ID #NYD986895084, licensed to generate more than 1000 kg/month of hazardous waste. No violations were listed. ["No longer occupies space on the 83rd floor; they are located on the Concourse. I do not remember handling, nor do I currently handle, hazwaste for them."]
- 1 World Trade Center, B2 107, World Trade Center Operations, Contact John Ritter (212) 466-8518; ID #NYD981077480, on-Site, licensed to generate more than 1000 kg/month with a violation dated 8/13/90 identified as a general administrative violation, usually paperwork. [Note: Permit administration has been transferred to Mr. Phillip Taylor.]
- #1 World Trade Center, WPIX FM & TV Transmitter, (212) 555-1212; ID #NYD982281412, on-Site, licensed to generate 100-1000 kg/month of hazardous waste with no violations listed. ["I handled only one hazwaste shipment for them; batteries."]
- Two World Trade Center B1 &, Ebasco Services, Inc., ID #NYD986997930, a transporter, licensed to generate 100-1000 kg/month of hazardous waste with no violations listed. ["Ebasco is now Raytheon Engineers & Consultants. They are located in 2 WTC – 91st floor. They do not occupy space on the 77th floor. I handled only one hazwaste shipment for them; batteries."]
- 2 World Trade Center, Nynex Material Enterprises Co., ID #NYD986896462, licensed to generate 100-1000 kg/month of hazardous waste with no violations listed. ["N.Y. Telephone, then NYNEX, then Bell Atlantic, and now Verizon is still in 2 WTC, 9 – 14th floors. I do not remember handling, nor do I currently handle, hazwaste for them. I recall a waste out a few years ago in which mercury, and batteries were removed in support of their equipment upgrading. They do have posted a spill prevention, control, and countermeasures plan for their acid batteries on site."]
- 2 World Trade Center, 77th Fl, World Trade Center – Raytheon, Contact Patuto Vincent (212) 435-8507; ID#NYR000021105, licensed to generate more than 1000 kg/month of hazardous waste with no violations listed. ["Ebasco is now Raytheon Engineers & Consultants. They are located in 2 WTC – 91st floor. They do not occupy space on the 77th floor. I handled only one hazwaste shipment for them; batteries."]

- 5 World Trade Center, Suite 617, Ned Lloyd, Inc., ID #NYD045441615, located on the subject Site, a transporter licensed to generate more than 1000 kg/month of hazardous waste with no violations listed. [“No longer a tenant. I do not remember handling hazwaste for them.”]
- 6 World Trade Center, basement, U.S. Customs House, ID #NY1470057802, discussed above as a CERCLIS listed property.
- 6 World Trade Center, Room 867, U.S. Customs Laboratory, ID #NYD078892510, discussed above as a CERCLIS listed property.
- 3 World Trade Center, HH Room, Fuji Photo Film USA Inc., ID #NYR000039487, licensed to generate 100-1000 kg/month of hazardous waste with no violations listed. [“Fuji is now Kelly Direct. I do not remember handling, nor do I currently handle, hazwaste for them.”]
- 3 World Trade Center, Vista International Hotel, Contact Lewis Fluellein (212) 938-9100; ID #NYD047043856, licensed to generate 100-1000 kg/month of hazardous waste with no violations listed. This building, while not specifically the subject of this assessment, is located on the subject lot at the intersection of West and Liberty Streets and uses are considered on-Site uses.

A search of the Emergency Response Notification List (ERNS) maintained by the U.S. EPA for the Site only, revealed the Site is listed as:

- 72 S 1 World Trade Center, ID #268421, for a release reported 6/3/92 of an “unknown sheen sighting sheen size 1000 x 400 black and redish”.
- World Trade Center, ID #506484, for a reported 9/6/96 of an “unknown sheen sighting, sheen size 200 yds x 400 yds rainbow in color”.

A FOI request was made to the U.S. EPA for any available information regarding these ERNS listings on October 4, 2000 and was assigned Request Identification Number 02-RIN-00022-01. As of the date of issuance of this report, we have not received a response to this FOI request.

Based upon the apparent limited nature of the reported sheens, with no transition to a State Spill or Site listing, in our opinion, these ERNS reports are unlikely to indicate a significant threat to the subject Site.

However, as no response has been received to date to our FOI request, this status cannot yet be confirmed.

A search of National Pollutant discharge Elimination System (NPDES) Permits for the subject Site revealed the Site listed as NPDES Permit #NY0006033 related to the use of Hudson River water. This listing parallels the State Pollutant Elimination discharge Permit #NY0006033. See discussion of this Permit in Section 5.5.3.

4.2.2 State Regulatory Review

A search of the State Sites List and Spills List, the combined equivalent of the Federal NPL and CERCLIS listings maintained by the New York State Department of Environmental Conservation (NYDEC), identified the following properties located within a 0.5-mile radius of the Site:

- 1 World Trade Center, the subject Site, is listed with three (3) Spills under ID #9815253, 9412434 and 9913557. The first two (2) listings are Closed cases. ID #9815253 is actually for a sheen apparently unrelated to the Site observed on the Hudson River and ID #9412434 for the release of 20-gallons of petroleum within the facility on 12/16/94 that was never actually released to the environment. ID #9913557 is for the release of 1 gallon of material by Consolidated Edison. In our opinion, none of the above referenced Spills should have a significant impact on current Site conditions.
- 3 Rural (sic) Trade Center, Marriott Hotel, the operation at 3 World Trade Center located on the subject lot, is listed as Spill ID #9514293, a Closed case for the release of 1 gallon of engine oil related to an automobile accident. In our opinion, this Spill should not indicate a significant threat to the current Site conditions.
- 124 Liberty Street, New York City Fire Department Engine 10, an adjoining location located across Liberty Street southwest of the Site is listed as:

LUST #9610078, for a release resulting from a tank failure reported 11/12/96. The same release, with the same ID number, is also listed on the NYDEC Spill list. The USTs located on that property were closed 11/1/98 and replaced with two (2) new tanks discussed below. The release was apparently large with up to 4.69 feet of diesel fuel observed as a free-phase layer floating on groundwater at the Fire Station location.

UST #PBS2, 357685, with four (4) 550-gallon USTs closed in

place 11/1/98 on the property and two (2) tanks in service listed as a 330-gallon aboveground storage tank (AST) storing diesel fuel, constructed of steel/iron with a secondary containment; and a 1,000-gallon UST installed 11/1/98 storing diesel fuel constructed of reinforced fiberglass with a double-walled tank for secondary containment with leak detection and overfill protection.

Documents provided by Mr. Phillip Taylor (see Appendix H-1) indicate that this release impacted the subject Site. On about October 28, 1998, petroleum was observed to be entering the basement area at Ramp L connecting the primary Truck Dock to the Four and Five World Trade Center Truck Docks in the area that utilizes a section of a former subway tunnel as part of the truck ramp (Photo #14). Testing of the petroleum confirmed that it was the same product released from the LUST at the adjoining Fire Station at 123 Liberty Street. The written details of the on-Site response running from October 27, 1998 through November 3, 1998 were provided by Mr. Taylor. A request for additional information was made with the New York Department of Environmental Conservation (NYDEC). The response from the NYDEC to our FOI Request #2-651-00 provided little additional information beyond a copy of the Spill Report Form and the Petroleum Bulk Storage Program Facility Information Report (see Appendix H-1). Those documents confirm the spill report and the tank registration information reported above.

Documents provided by Mr. Taylor as well as information reported by him indicate that the petroleum that entered Ramp L of the World Trade Center on or about October 27, 1998 was determined by testing to be identical to the product released at the adjoining Fire Station. The release at the Fire Station, including the 4.69 feet of free-phase floating diesel fuel known to have been present as early as December 13, 1996, "...is immediately adjacent to the northbound IRT 1 and 9 train which runs into the WTC...." The active train tunnel is suspected to have been the route of transmission of the petroleum into the World Trade Center. On October 26, 1998 there was "...a major surface and sub-surface water" leak at the corner of Liberty and Greenwich Streets, the same corner where the Fire Station is situated, as a result of a fire hydrant failure. It was assumed that the diesel fuel that had been released at least 22 months previous to the water leak was hydraulically forced toward the World Trade Center via the active subsurface train tunnel by the water leak. The release within the World Trade Center has been cleaned and there currently is no indication of the release. While the Spill listing still has an "Active" status, the leaking tank or tanks are out-of-service and

new tanks (AST and UST) have been installed. The release has not been transitioned to a State Hazardous Waste Disposal Site. Mr. Taylor reported that since November 1998, no signs of any petroleum entering the facility have been observed.

Based upon the above information, including the fact that the release occurred off-Site, the source has been eliminated, the temporary apparent groundwater flow direction change caused by the hydrant leak is unlikely to re-occur, and that there does not appear to be any on-going impact, in our opinion, this historic release should not present a future significant risk to the environmental conditions on the subject Site.

- There are five (5) Spill listings on adjacent property related to Consolidated Edison equipment. Four (4) of the Spills are for 1 to 30-gallons of dielectric oil or petroleum in manholes. In our opinion, the minor releases within manholes should not be significant threats to on-Site conditions. The fifth Spill, ID #8810172, is for the release of 3,000-gallons of dielectric oil that occurred 8/25/88. Information regarding this Spill was requested from the NYDEC. Their response under FOI Request #2-651-00 generated only the Spill Report Form that confirmed the database information. The 3,000-gallon release occurred at Barclay Street and West Broadway and is listed as a release due to "equipment failure" affecting "land". Based upon the above information, including the limited nature of the releases, distance, the dense subsurface structures including vehicle ramps and utility tunnels in the area, *in our opinion*, these listings are unlikely to be significant threats to the subject Site.
- Liberty Street/Greenwich Street, considered an adjacent property, is listed as Spill ID #9414473, a Closed case for the release of 30-gallons of diesel fuel to the sidewalk which was cleaned up meeting NYDEC Standards. In our opinion, this Spill should not indicate a significant threat to the subject Site.
- West Street and Liberty Street, considered an adjacent property, is listed as Spill ID #9708178 for the release of 50-gallon of hydraulic oil on 10/15/97 onto the pavement from a cable pulling truck. In our opinion, this Spill should not indicate a significant threat to the subject Site.
- There are twenty-four (24) additional Spill listings, all apparently related to Consolidated Edison operations at the World Trade Center Sub Station at 66 Barclay Street located approximately 0.05 mile northeast of the Site. The Spills are all listed as transformer

oil or dielectric fluid and range from “2 drops” to “5 gallons”. In our opinion, these relatively minor releases should not be significant threats to the conditions on the subject Site.

- There are an additional twenty-five (25) Spill listings located between approximately 0.05 to 0.25 mile from the subject Site. Ten (10) are listed as Closed. The Spills range from 2 ounces to 2,000-gallons of dielectric fluid, transformer oil, diesel fuel, asbestos, fuel oil, antifreeze, hydraulic oil and unknown petroleum. Based upon distance, the relatively minor nature of the releases, release locations and distances, Closed status of the listings and/or nature of the subsurface between the Spill and the Site, in our opinion, none of the Spills reviewed should be a significant threat to the subject Site.
- 90 West Street, located approximately 0.06 mile southwest of the Site it listed as LUST #9610083, a Closed case with the NYDEC. This was a release of 5 gallons of fuel resulting from a tank overflow from a commercial vehicle reported 11/13/96 and closed the same date. No penalty was recommended. Based upon the relatively minor nature of the release at a likely downgradient location, and the Closed status, in our opinion, this Spill should not be a significant threat to the subject Site.
- 75 Warren St., located approximately 0.18 mile northeast of the Site is listed as LUST #9513843, a Closed case with the NYDEC. This listing was the result of a release reported 1/30/96 and closed 1/31/96 related to the release of 10 gallons of apparent fuel oil at a dwelling. Based upon the minor nature of the release, the distance and Closed status, *in our opinion*, this listing should not be a significant threat to the subject Site.
- 55-02 Broadway, located approximately 0.21 mile southwest of the Site is listed as LUST #8708195, a Closed case with the NYDEC. This case apparently resulted from a tank test failure and apparently did not indicate an actual release. Repairs were made and a re-test passed, closing the case. Based upon the nature of the listing, the distance and Closed status, *in our opinion*, this listing should not be a significant threat to the subject Site.
- 270 Broadway, located approximately 0.25 mile northeast of the Site is listed as LUST #9912451, a Closed case with the NYDEC. This case apparently resulted from a tank test failure and apparently did not indicate an actual release. Based upon the nature of the listing, the distance and Closed status, *in our opinion*, this listing should not be a significant threat to the subject Site.

A search of the State Solid Waste Landfill (SWL) Sites maintained by the NYDEC Division of Solid and Hazardous Materials within a 0.25-mile radius of the Site revealed no SWL listed.

A search of the State Registered Underground Storage Tanks (USTs) maintained by the NYDEC Division of Spills Management for the Site or its' abutters revealed both on-Site tanks, and tanks on adjoining operations. Tanks listed as being on-Site were discussed with Mr. Taylor. Information from the database review, our on-Site observations and from Mr. Taylor indicate the following tanks listed as on the subject Site:

- 134 West 58th St., 124 Wilshire House, a Registered UST Facility listed as on the subject Site, is erroneously located in the database and is actually not on the Site or abutting properties.
- Two World Trade Center, Barge Joan K., ID #MOS0-0363, Inactive, for a "vessel / barge" owned by Manhattan Oil Transportation of N.Y. Inc. whose office address is apparently the Two World Trade Center building. The tank is not actually located on the subject Site but on a barge owned by the company and, *in our opinion*, is not a significant threat to the groundwater and/or soil quality on the subject Site.
- 2 World Trade Center, Contact Kathleen Tobin (212) 338-7881, Bell Atlantic, N.Y. Telephone (now Verizon) ID #PBS2-344737, an active PBS Facility on the subject Site with five (5) active storage tanks identified as:
 - #1 a 10,000 gallon aboveground tank storing diesel fuel; constructed of steel and carbon steel; internal protection with paint and asphalt coating; an in-tank leak detection system; and a high level overfill alarm protection system;
 - #2, 3 & 4 are three 275-gallon aboveground tanks storing diesel fuel (Photos #39 & 40); constructed of steel and carbon steel; and an automatic shutoff overfill protection system; and
 - #5 a 100-gallon aboveground tank storing diesel fuel, (Photo #38) constructed of steel and carbon steel with an automatic shutoff overfill protection system.

These tanks are permitted through 8/23/03. There were all located on Level B-6 and observed October 10, 2000 and no signs of significant spillage or release was evident. No releases were identified associated with these aboveground tanks.

- 1 World Trade Center, Contact Jeffrey Induddi (212) 390-2219, Instinet Corp., One World Trade Center, ID #PBS2-602234, an Active PBS Facility with two (2) active aboveground tanks on the subject Site identified as two (2) 2,500-gallon tanks installed 8/1/93 storing #1, 2 or 4 fuel oil; constructed of steel/carbon steel with external protection of painted/asphalt coating (Photo #37). The tanks are located on Level B-1 and are permitted through 6/12/05. The tanks were observed October 10, 2000. No release was identified associated with these aboveground tanks.
- 1 World Trade Center, 88th Floor, Operations Contact John Castaldo (212) 435-8518; Port Authority of New York/N. Jersey, ID #PBS2-293563, an Active PBS Facility with six (6) active aboveground tanks on-Site identified as:
 - #1 10,000-gallon storing #1, 2 or 4 fuel oil (Photo #34); constructed of stainless steel alloy; situated on saddles, legs, stilts, rack, or cradle; with a concrete dike secondary containment; groundwater well leak detection; and product level gauge overfill protection;
 - #2 5,000-gallon storing #1, 2 or 4 fuel oil (Photo #33); installed 3/1/84; constructed of stainless steel alloy; on saddles, legs, stilts, rack or cradle; and product level gauge overfill protection;
 - #3 & 4 275-gallon storing 1, 2, or 4 fuel oil installed 5/1/70 & 3/1/84, respectively (Photos #35); constructed of stainless steel alloy; aboveground on saddles, legs, stilts, rack or cradle; in-tank leak detection system; catch-basin overfill protection;
 - #5 1,080-gallon storing 1, 2 or 4 fuel oil (Photo #41); constructed of stainless steel alloy; painted/asphalt coated external protection;
 - #6 55-gallon, closed and removed; and
 - #7 275-gallon storing 1, 2 or 4 fuel oil (Photo #42); aboveground; constructed of stainless steel alloy.

Tanks #1, 2, 3 and 4, located on Level B-6 between One and Two World Trade Center, were observed September 26, 2000 and tanks #5 and 7 on October 11, 2000. The six (6) active tanks, are all currently permitted through 7/14/02 under a permit granted to The Port Authority of New York. Tanks #5 and 7

are now under the operations of Deutsche Bank, a tenant, and Mr. Taylor reported the Port Authority permit will be modified to reflect the change and Deutsche Bank will get their own permit for Tanks #5 and 7. These tanks are located in Four World Trade Center, Level B-1. No release was identified associated with the above listed tanks.

Note: The Emergency Generator Rooms are equipped with secondary containment including at entries (Photo #36).

- Five World Trade Center, Contact John Castaldo (212) 435-8518, Port Authority of NY & NJ, ID #PBS2-604231, an Active PBS Facility; with two ASTs in service on the subject Site; each with a 10,000-gallon capacity storing #1, 2 or 4 fuel oil (Photo #31); installed 6/1/99; constructed of steel/carbon steel; aboveground on saddles, legs, stilts, rack or cradle; with a float vent valve overflow protection. The tanks, permitted through 9/17/04, were observed September 26, 2000. No release was identified associated with these tanks.
- River Water Pump Station, World Trade Center, Contact Leandro Zucchi (212) 435-5798; ID #CBS2-000204, an Active Facility, with the following tanks:
 - #1 2,000-gallon AST installed 10/69 and or removed 8/95. Listed as storing sodium hypochlorite, constructed of fiberglass coated steel with a diking secondary containment;
 - #1 2,000-gallon AST also listed as #1, also listed as removed; storing sodium hypochlorite removed on 4/95, installed 9/95 (apparently an error in the listing);
 - #1 2,000-gallon AST also listed as #1, listed as temporarily out of service constructed of fiberglass coated steel with secondary containment consisting of a "vault with access"; installed 9/95; storing sodium hypochlorite;
 - #2 2,000-gallon AST, removed; installed 10/69 and removed 8/95; storing sodium hypochlorite; constructed of fiberglass coated steel with a diking secondary containment;
 - #2 2,000-gallon AST also listed as #2, removed; installed 9/95, removed 4/95; storing sodium hypochlorite; constructed of fiberglass coated steel. As with Tanks #1, the date of removal is prior to installation and the listing is apparently in error;

- #2 2,000-gallon AST also listed as #2, temporarily out of service; installed 9/95; storing sodium hypochlorite; constructed of fiberglass coated steel with secondary containment consisting of a "vault with access"; and
- #3 2,000-gallon AST, removed; installed 10/69, removed 8/95; storing sodium hypochlorite; constructed of fiberglass coated steel with diking secondary containment;

The two (2) active ASTs are permitted through 9/28/02. The River Water Pump Station was visited September 27, 2000 and there are two (2) temporarily out-of-service, 2000-gallon ASTs (Photo #32). There apparently were three (3) older tanks installed about October 1969 that have been removed and replaced by the current tanks 9/95. Mr. Taylor reported the tanks are present as a contingency for possible use if sodium hypochlorite treatment of the river water becomes necessary. No such treatment is reported to have been or to be currently performed. See Section 5.5.3 for further discussion of the River Water Pump Station. These tanks, given their possible future use, location, current status and secondary containment, *in our opinion*, should not represent a significant threat to the subject Site.

All tanks observed were in good condition, apparently well maintained with no indications of significant release.

A search of the State Permits for the subject Site revealed the Site is listed as State Haz Pollutant Discharge Elimination System (SPDES) Permit #NY0006033 that parallels the NPDES Permit discussed in Section 4.1.2. See discussion of this Permit in Section 5.5.3.

4.3 Additional Records Review

As noted under appropriate listings, records of the U.S. EPA and NYDEC related to specific listings (including CERCLIS, ERNS, State sites and State Spills) and documents kept by Mr. Taylor including actual tank permits and other records were reviewed.

In summary, it is CRANDLEMERE & ASSOCIATES' opinion that none of the locations of *recognized environmental conditions* identified during the records review of this assessment, are likely to have a significant impact on environmental conditions on the subject Site.

5.0 INFORMATION FROM SITE RECONNAISSANCE AND INTERVIEWS

On September 26, 27 and 28 and on October 10 and 11, 2000, Mr. R. Wayne Crandlemere of CRANDLEMERE & ASSOCIATES inspected the Site accompanied by Mr. Phillip Taylor, Environmental Coordinator, World Trade Center Operations and Maintenance Management; Mr. Leandro Zucchi, Manager World Trade Center Operations & Maintenance Management; and/or Mr. Jeff Myers, Corporate Legal Assistant, the *key Site managers*. Information obtained from the *key Site managers* is being relied upon for information gathered during this assessment.

Documents provided for review included three-ring binders of internal Port Authority records broken down into the following categories:

- I. Regulatory Permits/Licenses; including tank permits (see Section 4.2.2), State Pollutant Discharge Elimination System (SPDES) Discharge Permit (see Section 5.5.3) and Manifests for Hazardous Waste and non-hazardous waste disposal and/or recycling.
- II. RCRA; including Hazardous Waste Management Plan, Hazardous Materials Response Plan, Response Team Training Records and Certificates, Hazardous Waste Inventory Records, and Hazardous Waste Weekly Inspection Reports.
- III. New York State DEC Annual Audit/Toxic Release Reports.
- IV. Hazmat; including Training Certificates, Response Plan, Supply Inventory and Hazardous Waste Management Plan.
- V. Community-Right-To-Know Inspections; including summaries of storage locations and types of container sizes of hazardous materials stored.
- V. Waste Profile; including Hazardous Waste Reports to NYSDEC, lab test results and chain-of-custody documents.

The above cited documents are in the custody of Mr. Taylor.

5.1 Hazardous Substances and Unidentified Substance Containers

The documents referenced above contain a detailed listing of hazardous substances stored, used and/or generated on-Site. A detailed evaluation of the operations of the facility, except as they directly relate to possible on-Site releases to the environment, is beyond the Scope of this assessment. However, the documents provided appear quite complete and contain significant amounts of operational information the *user* may wish to directly review. The documents reviewed in Binder-V, Community Right-To-Know Inspections, provided an extensive listing of materials stored. These include: propane fuel, alcohols, paints

and thinners, wood finishes, solvents, photo fixer and developer, acetone, adhesives, cleaners, cements, bleach, lubricating oils and grease, transmission fluid, epoxy adhesives, cutting oils, diesel fuel, insecticide and degreasers. These materials are primarily stored in the main Maintenance Storage Rooms on Level B-1 of One World Trade Center, and in small storage cages and shops all located in the underground levels of The World Trade Center. The following storage locations were accessed and observed:

- Port Authority Maintenance Stock Rooms, One World Trade Center, Level B-1, (Photos #24, 25 & 26);
- Motor Shop, Level B-4 (Photo #27);
- Lampers Cage, One World Trade Center, Level B-2;
- Mechanical Cage, One World Trade Center, Level B-2;
- Painters Office, Two World Trade Center, Level B-2 (Photo #28);
- Paint Shop, Two World Trade Center, Level B-2 (Photos #29 & 30);
- Marble Shop, One World Trade Center, Level B-2;
- Slurry Wall Shop, One World Trade Center, Level B-2;
- Carpentry Shop, One World Trade Center, Level B-2;
- Door Shop, One World Trade Center, Level B-1;
- Pump Shop, One World Trade Center, Level B-1;
- Emergency Generator Room, One World Trade Center, Level B-6 (Photo #21);
- Chiller Plant, One World Trade Center, Level B-5; and
- River Water Pump Station (Photos #22 & 23).

All of the observed materials were apparently adequately stored with no signs of release that, in our opinion, would constitute a significant threat of release to the environment.

The documents reviewed in Binder-IV, Hazmat, provided a listing of classes of hazardous waste produced and the generation source of the waste. These include:

Hazard Class	Generation Source
2: Flammable Gas	Welding, Cutting, Torching gases
3: Flammable Liquids	Gasoline, Solvents
8: Corrosives	Cleaning solutions, acids, batteries
9: Miscellaneous	PCB Ballasts
Universal Waste	Fluorescent lamps (mercury containing)
Waste Oil	Emergency generators, pumping station

Hazardous wastes are primarily stored in a Hazardous Waste Room (Trailer) or within a chain-link fenced enclosure in truck dock area (Photos #17, 18 & 19). Asbestos waste is stored in an enclosed dumpster in the truck dock area (Photo #16). (Note: The trash shown on top of the dumpster is not asbestos-containing waste.) Waste fluorescent lights are placed on pallets and plastic wrapped. They are stored in an area near the truck dock (Photo #20). Mr. Taylor reported that his office handles nearly all hazardous waste generated at The World Trade Center facility (see discussion in Section 4.2.1 under RCRA Permits). He reported the amounts of hazardous waste generated and disposed from January, 2000 to August, 2000 as:

Fluorescent Lamps	3.9 Tons
PCB Ballasts	2.6 Tons
Batteries	8.0 Tons
Liquid Wastes	1.9 Tons
Waste Oil	8.23 Tons
Total	24.63 Tons

Manifests are kept in Mr. Taylor's office. A breakdown of the hazardous and non-hazardous waste disposed in 1999 as well as location of storage of hazardous materials are included in Appendix H-6.

Based upon the information presented and reviewed as well as our observations of storage areas for both new materials and waste, *in our opinion*, there is little likelihood that these operations will significantly impact the subject Site.

5.2 Storage Tanks, Aboveground and/or Underground

As discussed in Section 4.2.2, there are registered ASTs located on the subject Site, and ASTs and combination aboveground and underground tanks located on abutting locations. See Section 5.3 for a discussion of ASTs on-Site associated with trash compactors and hydraulic elevators. As described in Section 3.3, there are ASTs storing water associated with the sprinkler and mechanical systems.

As discussed in Section 4.2.2, the only tank that was determined to have impacted the subject Site was a LUST at the adjoining Fire Station.

Based upon the information presented and reviewed, *in our opinion*, none of the

other registered tanks are likely to have a significant impact on the subject Site.

5.3 Indications of PCBs

Electricity is provided via underground cables from the electric substation located at 66 Barclay Street adjacent to Seven World Trade Center. There have been a number of releases associated with that substation that are discussed in Section 4.2.2. Mr. Taylor reported that there are no PCB-containing transformers on-Site.

Elevators are primarily cable/electric or gear/electric type with only three (3) hydraulic elevators reported. Elevators FE5 and FE6 are in-service hydraulic elevators and the machine rooms of each were observed. The machine rooms for FE5 and FE6 (Photo #45) showed no signs of significant release. However, the elevator pit of elevator FE5 had a recent release that had an absorbent applied but clean-up was not complete (Photo #43). The release has spread under a joining door to Room #1, One World Trade Center, Level B-1 (Photo #44). Mr. Taylor reported that the fluid does not contain PCBs and would be cleaned by his Hazmat trained crew. The third hydraulic elevator, an out-of-service unit that serviced a former tenant (Swiss Bank) was not observed and no information regarding this elevator was readily available.

Mr. Taylor reported the World Trade Center has never had PCB-containing high voltage apparatus. He did state that the PATH operation did have PCB-containing dielectric in their World Trade Center station. See the Port Authority Memorandum in Appendix H-4. He reported the only known PCB-containing equipment in the World Trade Center are fluorescent light ballasts that are handled as special waste for recycling (see Section 5.1).

There are seven (7) hydraulically operated trash compactors in the truck dock area (Photo #15). No signs of significant release was observed.

There were no other potential significant sources of PCBs identified on-Site during our assessment.

5.4 Indications of Solid Waste Disposal

There are dumpsters located in the subsurface truck dock area that are contracted for off-Site disposal. No significant releases were identified in the area of the dumpsters. No evidence of improper disposal of hazardous materials was observed in the vicinity of the dumpsters.

5.5 Physical Setting Analysis

5.5.1 Physical Site Description

The Site consists of one irregular shaped parcel of land (Figure 2A) bounded by West Street to the west, Vesey Street to the north, Church Street to the east, and Liberty Street to the south. Site access from West Street is one level below the level of the Church Street entrance due to the sloping nature of the Site from east to west.

The Site is covered by an approximately five-acre area (the Austin J. Tobin Plaza) connecting the One, Two, Three, Four, Five and Six World Trade Center buildings. Prior to the construction of the current improvements, the Site covered twelve (12) City blocks. [Note: As discussed in Section 3.2, the Three and Six World Trade Center buildings (the Marriott Hotel and U. S. Customs Building) while physically located on the subject Site lot, for the purpose of this assessment they are considered upgradient abutters to the subject Site.] The Plaza includes large raised seasonal flowerbeds and public benches and features a 130,000 square foot granite-paved quadrangle surrounding a central fountain and rotating sculpture. The Plaza is bordered by restaurants, food kiosks, and public seating areas. The recently completed Due Diligence Physical Condition Survey report prepared by Merritt & Harris, Inc. should be reviewed for more details related to this physical description.

The Subgrade includes six (6) levels of basement space located two levels below the level of Church Street and one level below the Concourse with a reported total gross area of 2,656, 435 square feet. The Subgrade was constructed after approximately 1,200,000 cubic yards of fill were removed from the Site.

5.5.2 Site Drainage

The buildings are serviced by the municipal water and sewer systems.

Storm water flows to sewers in the streets and is ultimately discharged to the harbor. Highway department data indicates that there exist two 96" diameter outfall discharges to the north (Vesey Street) and to the south (Rector Place North) at the Pierhead line of Battery Park City. Storm water from the Trade Center Complex and the adjoining streets flows to these two municipal sewer mains. Limited survey information shows 2 – 24" storm sewer connections exiting the area of 5 World Trade Center to the north in Vesey Street.

Sanitary waste flows to municipal sewers in the streets. Multiple house traps were observed in the Subgrade spaces, but full connection data was

not available. Highway department data indicates that a 78" intercepting sewer main runs from north to south in the center of West Street.

Floor drains, reportedly connected to the municipal service, were observed in various locations.

5.5.3 Surface Water Resources and Drainage

No formal wetlands delineation was performed as part of CRANDLEMERE & ASSOCIATES' assessment. No wetlands were identified on the Site or in the immediate vicinity of the Site.

According to the Environmental FirstSearch Report, the Flood Insurance Rating Map (FIRM) Panel 33604970054B shows the Site is partly situated within a 100-Year flood plain and partly within a 500-Year flood plain.

The World Trade Center Complex utilizes Hudson River water in the buildings' condenser water system. The River Water Pump House is located subsurface, under the Rev. Monsignor John J. Kowsky Plaza, between the North Cove Yacht Harbor and Gateway Plaza, immediately adjacent to the Hudson River to the west of the Site. The pump house has two (2) intake tunnels with two (2) screen chambers to remove marine life and other solids from the river water. The river water is pumped via two main pipes (60-inch and 66-inch diameter) to the chiller plant on Levels B-5 and B-6 and to the computer cooling water system on Levels B-3 and B-4. The river water is utilized as the medium by which supplemental air conditioning systems release their reject heat via heat exchangers. The system is described in more detail in Section I (pages 7 and 8) of the June 21, 2000 World Trade Center Property Book prepared by JP Morgan. The river water is then returned to the Hudson River. This use of Hudson River water is permitted under a current NYDEC State Pollutant Discharge Elimination System (SPDES) Discharge Permit #NY-0006033, DEC #2-6205-00041/00001-0 issued 5/1/99 with a 5/1/04 expiration date (see copy in Appendix H-5). The use of river water appears to be in compliance with the SPDES Permit and copies of required monitoring reports are maintained by Mr. Taylor. He provided documentation that SPDES inspections performed March 23, 1999 and March 13, 2000 showed "no reported permit limit exceedences" from April 1998 through March 2000 and that the system was operated within the Permit's acceptable parameters.

5.6 Any Other Conditions of Concern

The presence of radioactive materials, biological hazards, radon, lead-based paint, lead in drinking water, archeological issues, and wetlands are out of Scope issues in the ASTM Standard and were not addressed in this assessment.

5.6.1 Asbestos-Containing Building Materials

Beyond the Scope of Work for the ASTM Standard for a Phase I Environmental Site Assessment, but as required by the *user*, summaries of readily available information (provided and apparently prepared by the Port Authority of New York and New Jersey) pertaining to the presence of asbestos-containing building materials (ACBM) and documentation of the work done to abate ACBM was evaluated. No sampling or analysis was included and this is not to be interpreted as a complete asbestos survey.

The World Trade Center was constructed between 1966 and 1970 when asbestos was used in buildings as a fire retardant. According to the World Trade Center Property Book (see Section 3.4), “sprayed on asbestos is present within the 6th floor catwalks, mezzanine substructure, elevator shafts and machine rooms, interior core pipe chases, and electric and phone closets of the Twin Tower buildings. Additionally, asbestos-containing thermal system pipe insulation is present in pipe chases, the Concourse ceiling plenum and in MERs [mechanical equipment rooms], while vinyl asbestos floor tiles are present throughout the complex. The Port Authority has removed a large portion of the asbestos material typically located on the structural columns and on pipe insulation from tenant floors in One World Trade Center, and has removed much of the pipe wrap insulation found in the Subgrade. The practice of containment has not been implemented at the World Trade Center.”

It was noted during our assessment that the presence of ACM on the main steam station and ConEd steam line has been verified and other locations may not be verified. In addition to the locations noted above for spray-on fireproofing, the material is reported to be still present on some full floors and some smaller locations on the other floors of both One and Two World Trade Center. Additionally, although in most cases removal was the preferred method of abatement (rather than containment), Mr. Taylor reported approximately 5,000 square feet of spray-on fireproofing in the Subgrade main truck dock area has reportedly been “encased” (actually encapsulated). The owner reports 50,000 square feet of asbestos-containing fireproofing remains at the main truck dock. Mr. Taylor reported that the fireproofing at the U.S. Customs truck dock has been removed and replaced with non-ACM spray-on tinted blue. The encased ACM spray-on remaining at the main Port Authority truck dock is reported to be tinted “whitish” for visual identification.

“In addition to full-scale abatement projects, the World Trade Center has instituted an ongoing operations and maintenance program whereby specific individuals on the staff are trained as certified ACM handlers and can respond with appropriate equipment and procedures to manage incidental ACM incidents. Tenants whose space may contain ACM have been formally notified.”

Please note: There is reported litigation in progress for cost-recovery of money related to ACM abatement and/or management. This litigation was not evaluated as part of this assessment and the *user* should consider a detailed review of the on-going litigation and make their own determination as to the impact, if any, on their use of this report and/or future impact of the litigation on their decision making process related to the World Trade Center. Further, the information presented in this report is based at least in part on a somewhat arbitrary separation of areas of the complex that may or may not have any basis in the current operation of the Complex as it is currently managed as one facility. The *user* should consider this report as a good faith effort to present ACM related information to the subject area. However, the *user* is encouraged to review the ACM related Section of the Phase I Environmental Site Assessment (ESA) report which provides a summary of all ACM related information provided by the *owner*. Included in Appendix H-7 of the ESA report are copies of the asbestos program highlights as presented in the World Trade Center Environmental Programs 1999 Year End report. This includes a summary of 1999 Asbestos Projects, World Trade Center Asbestos Disclosure, World Trade Center Elevator Shaft Asbestos Assessment, and World Trade Center Asbestos Contract Administration procedures. Additionally, the *user* should consider an independent review of the information provided.

It should also be noted that certain materials such as fire doors were not included in the materials suspected to be asbestos-containing and have not been tested or otherwise investigated. It was reported that testing of spline ceilings, hung ceilings, wallboard and wallboard joint compound determined that they were not ACM throughout the facility. A review of test results was not performed and we cannot verify the adequacy of such testing. The *user* may wish to further investigate such materials.

There have been significant on-going asbestos abatement projects and cost estimates provided by the *owner* indicate the following estimated removal costs:

<u>Material</u>	<u>Removal Cost</u>
Vinyl asbestos tile (VAT)	\$ 5-6/square foot
Sprayed-on Fireproofing	\$20-25/square foot
Thermal System Insulation	\$15/linear foot

The actual costs for VAT removal for 1999 projects are provided in Appendix H-7 of this submission.

Documentation regarding the presence of ACM in elevator shafts is presented by shaft designation. It is unclear where the shafts are located within the facility and the *user* should consider cross-referencing the shaft locations with specific Center locations. Mr. Taylor reported that there are forty (40) shafts that contain ACM.

ACM in One World Trade Center, The North Tower:

Materials known to be present in One World Trade Center (excluding mechanical equipment rooms, truck dock and Subgrade locations) appear to include:

<u>Material</u>	<u>Amount</u>
Spray-on fireproofing	124,888 square feet
Cementitious insulation behind convector units	60 square feet
Thermal system insulation (TSI)	1,430 linear feet
Exhaust duct insulation	1,000 linear feet
Elevator pits and shafts	As noted in documents
VAT	710,677 Square feet

Additionally, the following ACM was reported:

Mechanical Equipment Rooms	100,000 square feet spray-on fireproofing and unknown quantities of TSI
Level B-1; Cove and Northeast quadrant	5,000 square feet spray-on fireproofing/No TSI
Level B-6	40,000 square feet spray-on fireproofing/No TSI
Roof	Could contain asbestos

ACM in Two World Trade Center, The South Tower:

Materials known to be present in Two World Trade Center (excluding mechanical equipment rooms, truck dock and Subgrade locations) appear to include:

<u>Material</u>	<u>Amount</u>
Spray-on fireproofing	64,440 square feet
Cementitious insulation behind convector units	90 square feet
Thermal system insulation (TSI)	1,430 linear feet
Exhaust duct insulation	1,000 linear feet
Elevator pits and shafts	As noted in documents
VAT	1,734,032 square feet

Additionally, the following ACM was reported:

Mechanical equipment rooms	25,000 square feet spray-on fireproofing and unknown quantities of TSI
Roof	Could contain asbestos

ACM in Four World Trade Center:

Information provided reports:

“There is no asbestos-containing sprayed-on fireproofing in 4 WTC.”

“Thermal system insulation is in the form of pipe saddles... Quantities not determined.” The use of the term “pipe saddles” is assumed to mean insulation around pipe hangers.

“ACM may be present in elevator shafts.”

ACM has been removed from the roof.

There is no ACM in mechanical rooms.

There is 241,000 square feet of VAT remaining.

ACM in Five World Trade Center:

Information provided reports:

There is no asbestos-containing sprayed-on fireproofing in Five World Trade Center. Non-asbestos-containing spray-on fireproofing is present.

Thermal system insulation is present, however, the quantity is unknown.

“ACM may be present in elevator shafts.”

There is a “Cementitious patch of less than 160 square feet on a beam... on the 5th floor....”

There is no ACM in mechanical rooms.

There is 167,515 square feet of VAT remaining.

ACM in Retail Mall and Plaza:

Information provided reports:

“There is no asbestos-containing spray-on fireproofing on the Plaza or Concourse (Mall).”

“There is approximately 500 linear feet of TSI in the plenum of the Concourse (Mall).”

“Vinyl asbestos floor tiles may... be present in some of the retail stores.”

ACM in Central Services:

It is unclear how much, if any, asbestos-containing, spray-on fireproofing and/or thermal system insulation may be present in areas designated Central Services.

Some TSI is likely and other ACBM could be present. As noted above, the Central Services area was not a designation used by the owner. They include the Subgrade portions of Central Services in their Subgrade designation. Mr. Taylor reports that most original spray-on fireproofing and TSI has been removed from the Subgrade portion of the facility with the exception of the main Port Authority truck dock. (See discussion under Subgrade Areas below.)

No information specific to the River Water Pump Station or the river water pipe tunnels was provided. The *user* may wish to further evaluate these areas.

ACM in Subgrade Areas:

Documents reviewed suggest that areas may have VAT. Additionally, elevator shafts that may penetrate the area, if any, probably have ACM present.

Information provided reports that there is no asbestos-containing fireproofing in the Subgrade parking areas. Thermal system insulation is present but quantities were not provided. Mr. Phillip Taylor reported that the asbestos-containing fireproofing at the U.S. Customs truck dock has been removed and replaced with non-asbestos fireproofing tinted blue. He reported that some small areas of "spot removal" has occurred and that approximately 5,000 square feet of asbestos-containing fireproofing at the main Port Authority truck dock was "encased" (actually encapsulated) and that the encapsulated fireproofing is tinted "whitish". The remainder of the fireproofing (50,000 square feet) at the main truck dock is reported original and to be ACM.

5.6.2 Other Issues of Environmental Concern

Other related issues such as indoor air quality, airborne dust and silica, and airborne metals were evaluated after a February 26, 1993 bomb explosion are discussed in a report prepared by GR Environmental, Inc. titled "Environmental Investigation & Assessment Report". They concluded that results "...were within acceptable parameters..." The areas effected by the bomb explosion, including the location of the explosion (Photo #13), have been fully rehabilitated and reconstructed. This report is included in Appendix H-1 of this submission. The facility management also has an Indoor Environmental Quality Program that covers numerous activities within the facility. They also have a Food Establishment Inspection Program that covers all restaurant and other food establishments in the facility. Summaries of these Programs are included in Appendix H-6.

Discussions related to the facility programs that deal with the electro-magnetic radiation related to the antenna tower on One World Trade Center are included in the condition assessment reports related to each of the Twin Tower buildings (One and Two World Trade Center). See those reports for information specific to those buildings and facility areas.

6.0 MAJOR FINDINGS AND CONCLUSIONS

We have performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E1527-97 of The World Trade Center, New York City, NY 10081, the *property*. Any exceptions to, or deletions from, this practice are described in Section 2.3 of this report.

The Site is located in a dense urban area with mixed commercial, municipal and residential property uses. The Site is situated on the lower south side of the Borough of Manhattan and bounded by West Street to the west, Vesey Street to the north, Church Street to the east, and Liberty Street to the south.

The recently completed Due Diligence Physical Condition Survey report prepared by Merritt & Harris, Inc. should be reviewed for more details related to this physical description.

The Site consists of approximately 16 acres of land improved with:

The Twin Towers: One and Two World Trade Center, the North and South Towers, respectively, two 110-story office tower buildings constructed in 1970; One World Trade Center contains a 360-foot welded steel tube antenna mast which rises 1,728 feet aboveground and is used by 14 television and radio networks broadcasting in the New York metropolitan area;

The Plaza Buildings: Four and Five World Trade Center, the Southeast and Northeast Plaza Buildings, respectively, are "L"-shaped buildings, constructed in 1977 and 1975, respectively. The first three floors of these buildings (the Concourse, Plaza and third floor, all included in the Mall described below) contain retail space. The 2nd and 3rd floors also contain commercial and building service space. Floors 4 to 9 in both buildings are used for office space;

The Mall at the World Trade Center: The Mall consists of retail space located on the Concourse level, the "Plaza", and 3rd floor levels of Four and Five World Trade Center. The Mall was constructed between 1970 and 1977;

The Austin J. Tobin Plaza: An approximately five-acre landscaped area connecting the One, Two, Four and Five World Trade Center buildings. The Plaza includes large raised seasonal flowerbeds and public benches and features a 130,000 square foot granite-paved quadrangle surrounding a central fountain and rotating sculpture; and

The Subgrade: Six basement levels of space located two levels below the level of Church Street and one level below the Concourse. The Subgrade includes parking areas, storage areas, below-grade offices, truck docks and platforms, mechanical equipment rooms, refrigeration plant and vertical penetrations. The World Trade Center PATH terminal, a regional rapid transit system, is also located in the Subgrade areas.

The Site is listed as the location of *recognized environmental conditions* discussed in Sections 4.0 and 5.0. As stated in those Sections, in our opinion, based upon information reviewed and

observations during our Site visit, these *recognized environmental conditions* should not have a significant impact on conditions on the subject Site.

There were several additional locations of *recognized environmental conditions* identified within the ASTM search radius, as discussed in Section 4.2 of this report. Based upon information reviewed and presented in Section 4.2 of this report, it is our opinion, that events occurring on these properties are unlikely to impact the environmental integrity of the subject Site.

CRANDLEMERE & ASSOCIATES makes no representations regarding the quality of soil or groundwater on the Site. However, as no *recognized environmental conditions* were identified which, in our opinion, would be likely to significantly impact groundwater and/or soil conditions on the subject Site, no further assessment is recommended.

Documents related to the presence of asbestos-containing building materials (ACBM), an out-of-scope issue under the ASTM Standard, were reviewed and a summary of locations of ACBM known to be present is provided in Section 5.6.1 of this submission. The ACBM in the facility is managed under an Operations and Maintenance Program and appears to be adequately addressed.

Documents related to electromagnetic radiation, also an out-of-scope issued under the ASTM Standard, related to the roof-top transmission equipment in One World Trade Center and its' impact on the roof-top observation deck on Two World Trade Center were reviewed. Results of that review are included in separate reports presented in the condition assessment reports related to those individual structures.

7.0 QUALIFICATIONS OF PARTICIPATING ENVIRONMENTAL PROFESSIONALS

R. Wayne Crandlemere, President

PROFESSIONAL STANDING

Recording Secretary and Member ASTM Committee E.50 on Environmental Assessment
Member, National Institute of Building Sciences (NIBS)

Committee on Asbestos O&M Work Practices
Mass. DOLI Third Party Instructor, Right-To-Know Training
MA, NY, VT and RI Licensed Asbestos Inspector
Instructor, New York University Seminar on Property Inspection

EDUCATION

Suffolk University: 1975, M.S. in Analytical Chemistry;
1970, B.S. with Honors in Chemistry, Math/Physics Minor
Franklin Institute of Boston, 1967, A.E. Chemical Technology

PROFESSIONAL EXPERIENCE

1993 - Present: R. W. Crandlemere & Associates, Inc., Weymouth, MA, President. Founder of environmental consulting firm providing environmental site assessment, property condition assessment, health and safety, and industrial hygiene services; expert witness testimony; and management of hazardous materials to financial, industrial, commercial, and medical organizations. Actively involved in ASTM Committee on Environmental Assessment which published national standards in 1993 for investigation of property for environmental contamination. Also a member of the NIBS Committee that recently completed the published "Guidance Manual: Asbestos Operations & Maintenance Work Practices." Appointed as Technical Representative of the Town of Holbrook, MA Task Force overseeing the clean-up of the Baird McGuire CERCLA "Superfund" site.

1983 - 1992: Certified Engineering & Testing Co., Inc., Weymouth, Ma, President, CEO and Chairman of the Board of Directors. Co-founded nationally recognized environmental consulting and testing firm and directed growth to over 240 employees located in nine offices. Responsible for over-all technical supervision of both laboratory and field operations. Personally assisted Goldman Sachs, Wells Fargo and Prudential Realty Group, among others, in developing internal standards and guidelines for inspection of property. Consulted in the areas of environmental impact of pollution; asbestos hazard evaluations and abatement; safety evaluations; OSHA compliance; and forensic investigations.

1974 - 1983: Briggs Associates, Vice President, Chief Chemist, Laboratory Director and Member of the Board of Directors.



U.S.G.S. 7.5 Minute Topographic Map Jersey City, New Jersey - New York, Quadrangle 1981

W. CRANDLEMERE & ASSOCIATES, INC., 549 Columbian Street, Suite 305, Weymouth, MA 02190

ent: Merritt & Harris, Inc.

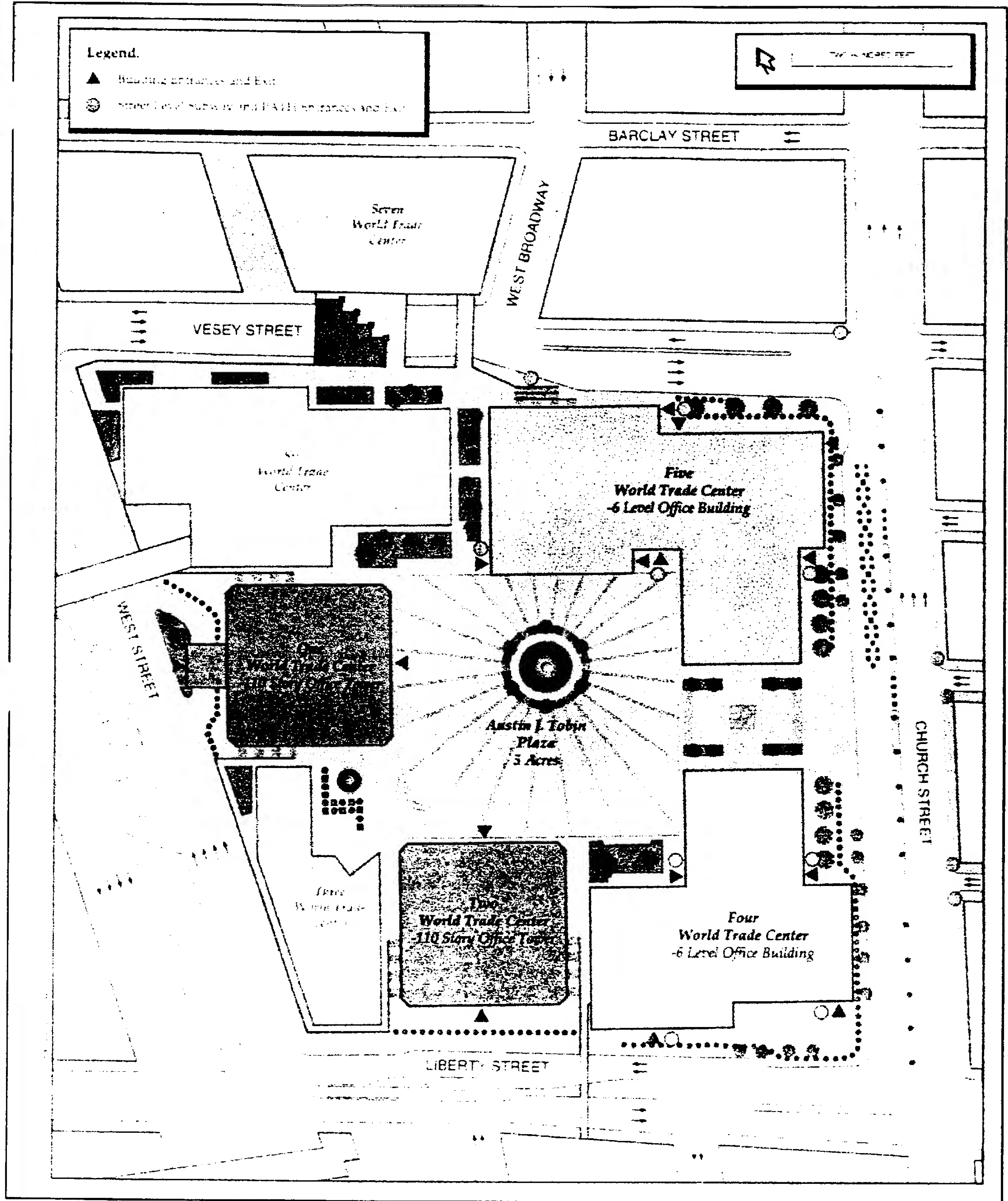
ate: World Trade Center, New York City, NY 10081

SITE LOCUS PLAN

FIGURE 1

Date: October, 2000

Project: 000095



JP Morgan World Trade Center Site Plan. Drawing not to scale. For reference only.

CRANDLEMERE & ASSOCIATES, INC., 549 Columbian Street, Suite 305, Weymouth, MA 02190

Site: World Trade Center, New York City, NY 10081

SITE PLAN
FIGURE 2A
Surface Level

Concourse Level



TWO HUNDRED FEET

Legend

- Apparel
- Bank/Finance
- Specialty Items and Services
- Food
- Available/Committed
- Other

VESEY STREET

WEST STREET

One
World Trade
Center

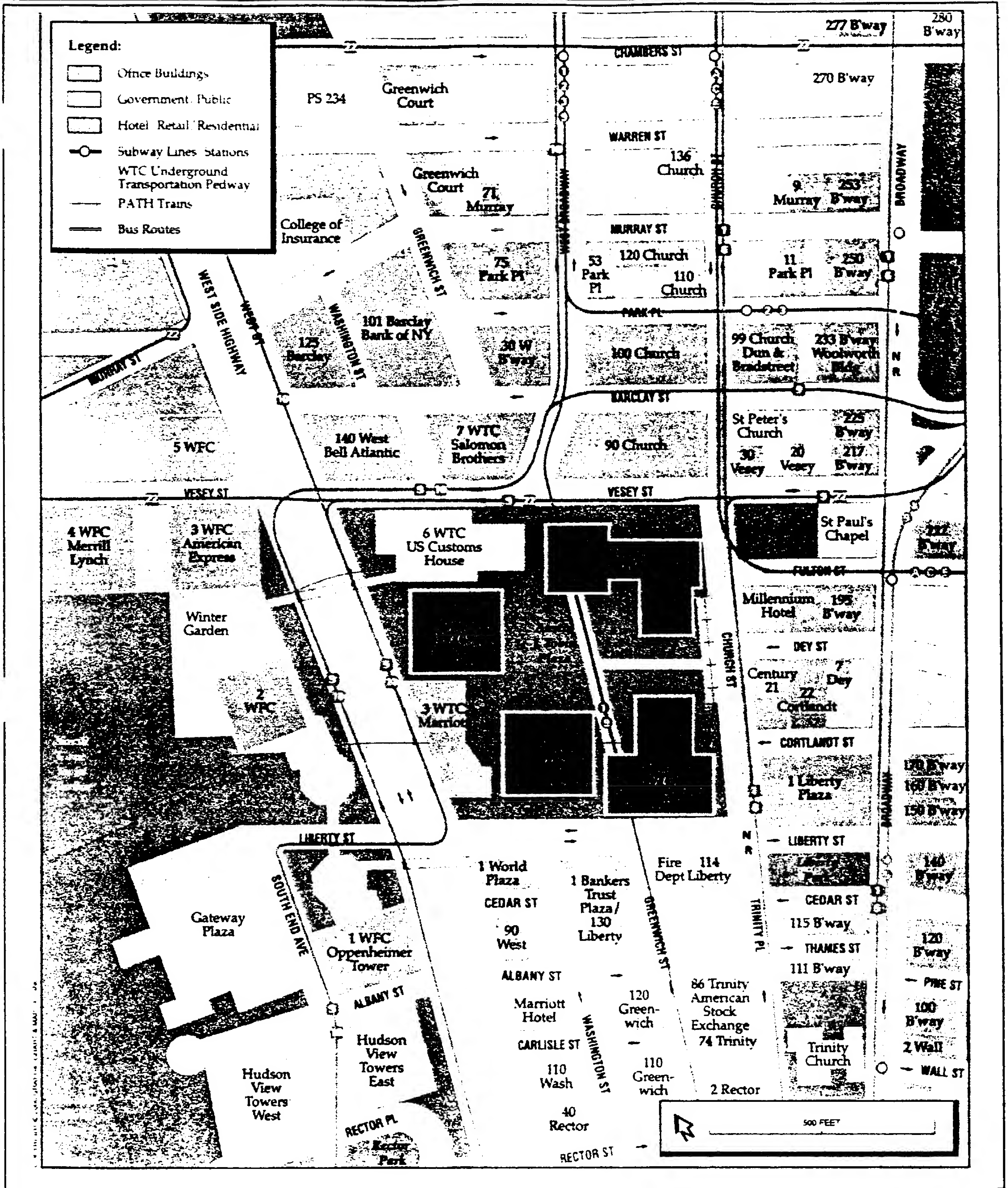
Two
World Trade
Center

LIBERTY STREET

JP Morgan World Trade Center Site Plan. Drawing not to scale. For reference only.

CRANDLEMERE & ASSOCIATES, INC., 549 Columbian Street, Suite 305, Weymouth, MA 02190
Site: World Trade Center, New York City, NY 10081

SITE PLAN
FIGURE 2B
Concourse Level



in JP Morgan World Trade Center Site Plan. Drawing not to scale. For reference only.

J. CRANDLEMERE & ASSOCIATES, INC., 549 Columbian Street, Suite 305, Weymouth, MA 02190
 Site: World Trade Center, New York City, NY 10081

SITE PLAN
FIGURE 3
Site Vicinity Map

LIMITATIONS AND SERVICE CONSTRAINTS

Limitations

The findings set forth in the attached ASTM E1527-97 Phase I Environmental Site Assessment (ESA) report are strictly limited in time and scope to the date of the evaluation(s). The conclusions presented in the report are limited by the time and budget constraints imposed by the Client and are based solely on the services described in the report and not on scientific tasks or procedures beyond the agreed upon Scope of Work.

This report may contain opinions and/or recommendations which are partially based on the analysis of data accumulated at the time and place set forth in the report through subsurface exploration. However, further investigations may reveal additional data or variations from the current data which may require the recommendations to be reevaluated.

This report is prepared according to ASTM E1527-97 and is subject to all limitations described in the Standard. By ASTM definitions, the work reported constitutes "good and customary practice" as part of the requirements to qualify for the Innocent Landowner Defense to CERCLA liability. Performance of E1527-97 is intended to reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions in connection with a property and recognizes reasonable limits of time and cost. According to ASTM E1527-97, this assessment is not exhaustive and does not eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a property.

The user must be, and has agreed to be, familiar with ASTM E1527-97. Further, the user is responsible to provide the environmental professional with the following helpful documents if available: environmental site assessment reports; environmental permits; registrations for underground and aboveground storage tanks; material safety data sheets; community right-to-know plan; safety plans; preparedness and prevention plan; spill prevention, countermeasure and control plan; etc.; reports regarding hydrogeologic conditions on the property and surrounding area; notices or other correspondence from any government agency relating to past or current violations of environmental laws with respect to the property or relating to environmental liens encumbering the property; hazardous waste generator notices or reports; and geotechnical studies.

Chemical analyses may have been performed for specific parameters during the course of this site assessment, as described in the report. However, it should be noted that additional chemical constituents not searched for during the current study may be present in soil and/or groundwater at the Site.

Partial findings of this investigation are based on data provided by others. No warranty is expressed or implied with the usage of such data.

As specified in the ASTM Standard, this ESA may be considered valid for 180 days from the date issued. After this ESA is more than 180 old, it may be only used to the extent allowed by Section 4.7 through 4.7.5 of the ASTM Standard. The only risks evaluated in this study relate to potential environmental contamination. No other risks are included in this study. No evaluation of risks regulated by fire code, OSHA, or other regulations was made except as it may contribute to an environmental condition.

Service Constraints

Much of the information provided in this report is based upon personal interviews and research of all publicly available and reasonably ascertainable documents, records and maps held by the appropriate government and private agencies. The report is therefore subject to the limitations of historical documentation, availability and accuracy of pertinent records, and the personal recollection of those persons contacted.

Information obtained from commercial services are relied upon to the extent allowed by the ASTM Standard. Any errors or omissions in that information, whether originating in the original source or the commercial service, are beyond the scope of this investigation. No warranty is expressed or implied regarding the accuracy of such information.

The Site reconnaissance took into account the natural and man-made features of the site, including any unusual or suspect phenomenon. These factors, combined with the Site's geology, hydrology, topography and past and present land uses served as a basis for choosing a methodology and location for subsurface exploration as well as groundwater and subsurface sampling, if done. The subsurface data, if provided, is meant as a representative overview of the Site.

The location and analyses of soil, groundwater and surface water samples, if provided, were based on the same considerations listed in the paragraphs above. If samples were analyzed, they were analyzed for those parameters unique to the Site as determined from the preceding site evaluation.

The presence of radioactive materials, biological hazards, radon, lead-based paint, lead in drinking water, archeological issues, ElectroMagnetic Fields (EMF), wetlands, and Asbestos-Containing Materials (ACM), were not investigated unless specifically noted otherwise. This list of non-scope considerations is not intended to be all-inclusive. No implication is intended as to the relative importance of inquiry into such non-scope considerations.

A written qualifications statement of the environmental professional(s) responsible for this Phase I ESA, including relevant individual and corporate qualifications, has been provided to the user in this report.

This report is intended to be relied upon by the user identified in the report only. Use by any other person or entity, including any person or entity that may receive the report from the user, from public record files or from any other source, is prohibited. This report is subject to Ownership restrictions, Warranty limitations, Indemnifications, Standards of Care, and State of the Art limitations and other limitations that appear in the original Proposal, Terms and Conditions and/or other contract documents that define the relationship between CRANDLEMERE & ASSOCIATES and the user. These contractual obligations, limitations and conditions must be agreed to by any user of this report regardless of how the report or portions of the report were obtained. If any person or other entity uses this report without specific authorization by CRANDLEMERE & ASSOCIATES, they agree to the obligations, limitations, and conditions of the original contract even if they do not have these copies of such obligations, limitations, and conditions. Any additional user authorized by CRANDLEMERE & ASSOCIATES agrees to be bound by the same obligations, limitations, and conditions as presented in our original Contract documents, Proposal, Change Orders, and any and all other such limitations.

APPENDIX B

SITE ASSESSMENT SUMMARY

Current Owner: The Port of New York Authority

Site Location: One, Two, Four and Five World Trade Center
New York City, New York 10081

Borough of Manhattan, City of New York, New York State

Shown with the Borough of Manhattan Tax Assessors' Office:

Map #58
Block #1

Total Acreage: approximately 16 acres

Year Built:

One and Two World Trade Center, 1970
Four World Trade Center, 1977
Five World Trade Center, 1975

Site Contacts: Mr. Leandro Zucchi, Manager, WTC Operations & Maintenance Management
Two World Trade Center, Suite 15S, NY, NY 10048, (212) 435-5798

Mr. Phillip Taylor, The Port Authority of New York & New Jersey, Two World
Trade Center, 35th Floor, New York, NY 10048, (212) 435-8507.

Dates On-Site Investigation Conducted:

September 26, 27, 28 & 29, 2000 and October 10 and 11, 2000

APPENDIX C INFORMATION SOURCES

A review of certain pertinent *practically reviewable, readily available and reasonably ascertainable publicly available documents* were reviewed as follows.

The following sources are being relied upon for information presented in this report:

Mr. Phillip Taylor, The Port Authority of New York & New Jersey, Two World Trade Center, 35th Floor, New York, NY 10048, (212) 435-8507. Initial contact, provided Site and document access;

Mr. Leandro Zucchi, RPA, FMA, The Port Authority of New York & New Jersey, Manager, WTC Operations & Maintenance Management, Two World Trade Center, Suite 15S, New York, NY 10048, (212) 435-5798;

Mr. Jeff Myers, Corporate Legal Assistant, The Port Authority of New York & New Jersey, Five World Trade Center, 3rd Floor, New York, NY 10048;

Mr. Joel Edelstein, Asst. Manager, The City of New York, Department of Finance, provided copies of Maps.

Mr. Vincente Villafane, Surveyor in Charge, The City of New York, Department of Finance, (212) 669-4541.

Office of Real Property Assessment, The Municipal Building, 1 Centre Street, Room 910, New York, NY, (212) 669-4896. Provided property assessment records for the Site and vicinity.

New York City Public Library, Central Research Library, 5th Avenue & 42nd Street, Room 117, New York, NY, (212) 930-0587. Provided historical information regarding Site and vicinity.

Mr. Tom Kunkel, Director of Public Affairs, Region 2, New York State Department of Environmental Conservation, 47-40 21st Street, Long Island City, NY 11101, (718) 482-4949. Provided response to Freedom Of Information Request.

Freedom Of Information Officer 2CD, U.S. Environmental Protection Agency, EPA Region 2, 290 Broadway, 26th Floor, New York, NY 10007. Provided confirmation to request for information regarding Federal listed properties.

Other reports, plans and documents reviewed:

ASTM Standard E1527-97 for Phase I ESAs;

U.S. Geological Survey, (USGS) Jersey City, New Jersey – New York 7.5 Minute Topographic Quadrangle, 1981;

The Roadside Geology of New York by Bradford B. Van Diver (Mountain Press Publishing Company, Missoula, MT, 1997)

DataMap Technology Corp. Environmental FirstSearch™ Report dated 9/12/00:

- National Priority List (NPL);
- Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS);
- RCRA CORRACTS Facilities List;
- RCRA NON-CORRACTS TSD-Treatment, Storage and Disposal;
- RCRA Hazardous Waste Generators listing;
- Emergency Response Notification List (ERNS);
- National Pollution Discharge Elimination System Permit (NPDES) list;
- State Sites;
- State Spills 1990's;
- Solid Waste Landfills (SWL);
- Registered Underground Storage Tanks & Aboveground Storage Tanks (USTs & ASTs);
- Leaking USTs (LUST);
- State Wells;
- Floodplains;
- Receptors;
- Federal Land Use; and
- Federal Wells.

City of New York:

- Tax Assessor's Maps:

- Section 1, Index to Volume 2 (Blocks 57 to 108); and
 - Maps identified as #2, #3, #10A, #11, #22 & #23.

Sanborn Map Report with attached maps dated 1894, 1923, 1950, 1980, 1991, 1992, 1993 & 1995, provided by Environmental Data Resources, Inc.

Documents provided by owner:

- June 21, 2000, "World Trade Center Offering Memorandum", prepared by JP Morgan, Cushman & Wakefield & Milstein Realty Advisors;

- June 21, 2000, "World Trade Center Property Book", prepared by JP Morgan, Cushman & Wakefield & Milstein Realty Advisors;

- February 3, 1999, "RF Safety Awareness for World Trade Center Workers, a Presentation at the World Trade Center, New York, New York, February, 1999", prepared by Richard A. Tell, Richard Tell Associates, Inc., 8309 Garnet Canyon Lane, Las Vegas, Nevada 89129-4897;

Documents provided for review included three-ring binders of internal Port Authority records broken down into the following categories:

- II. Regulatory Permits/Licenses; including tank permits (see Section 4.2.2), State Pollutant Discharge Elimination System (SPDES) Discharge Permit (see Section 5.5.3) and Manifests for Hazardous Waste and non-hazardous waste disposal and/or recycling.
- II. RCRA; including Hazardous Waste Management Plan, Hazardous Materials Response Plan, Response Team Training Records and Certificates, Hazardous Waste Inventory Records, and Hazardous Waste Weekly Inspection Reports.
- VI. New York State DEC Annual Audit/Toxic Release Reports.
- VII. Hazmat; including Training Certificates, Response Plan, Supply Inventory and Hazardous Waste Management Plan.
- V. Community-Right-To-Know Inspections; including summaries of storage locations and types of container sizes of hazardous materials stored.
- VIII. Waste Profile; including Hazardous Waste Reports to NYSDEC, lab test results and chain-of-custody documents.

The above cited documents are in the custody of Mr. Taylor.

Numerous additional documents reviewed and provided by owner are included in our Appendices and/or referenced in the body of the report.



Photo #1:
Twin Towers
of the
World Trade
Center.



Photo #2:
Base of the
Towers
with hotel in
background.



Photo #3: Four World Trade Center from Plaza.



Photo #4: Five World Trade Center from Plaza.



Photo #7: Site from across intersection of Vesey and Church Streets; facing Southwest.



Photo #8: Site from across intersection of Liberty and West Streets; facing Northeast.



Photo #9: Entrance lobby – One World Trade Center from Plaza level.



Photo #10 – Concourse level.

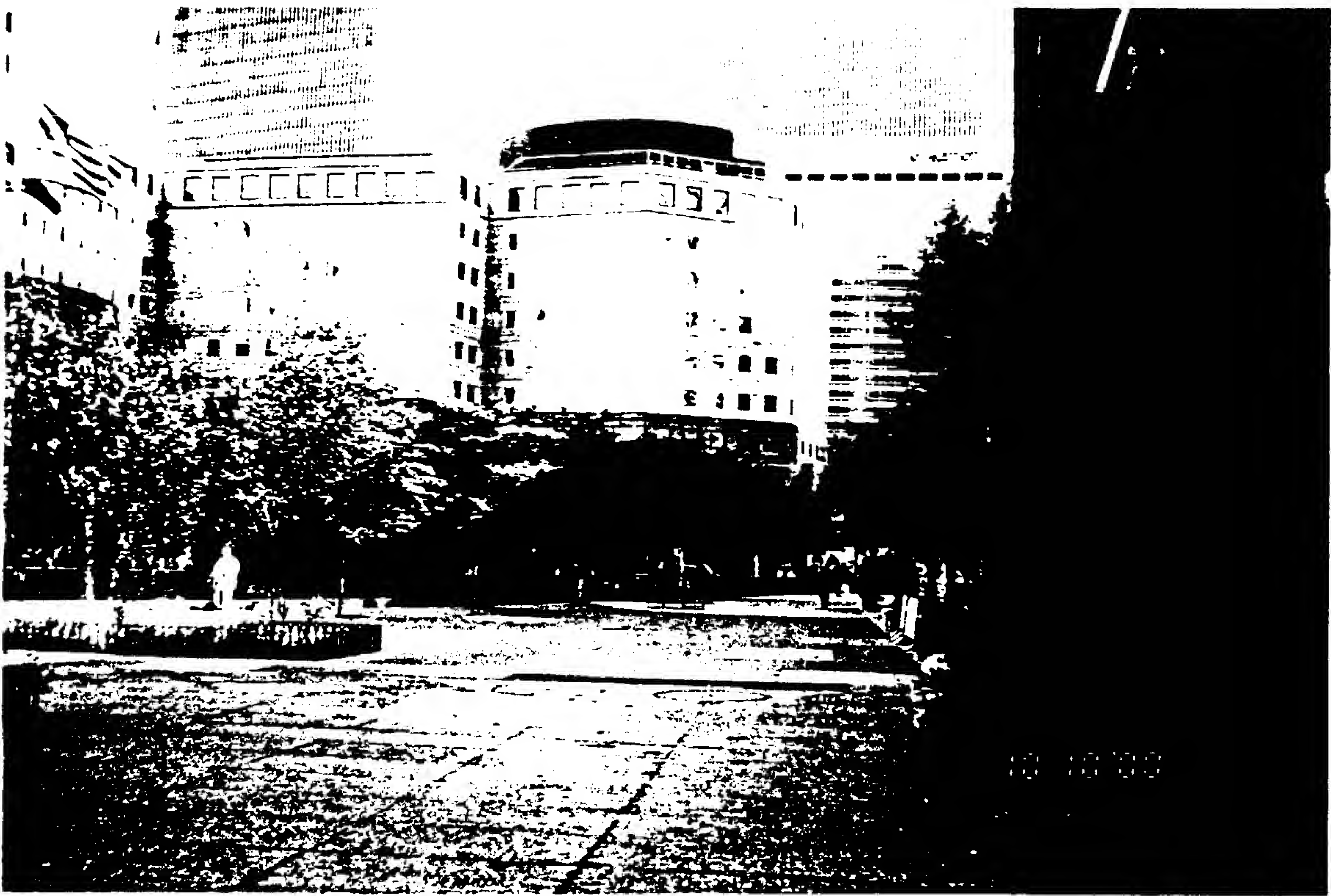


Photo #11: Rev. Monsignor John J. Kowsky Plaza.



Photo #12: Entrance to River Water Pump Station.

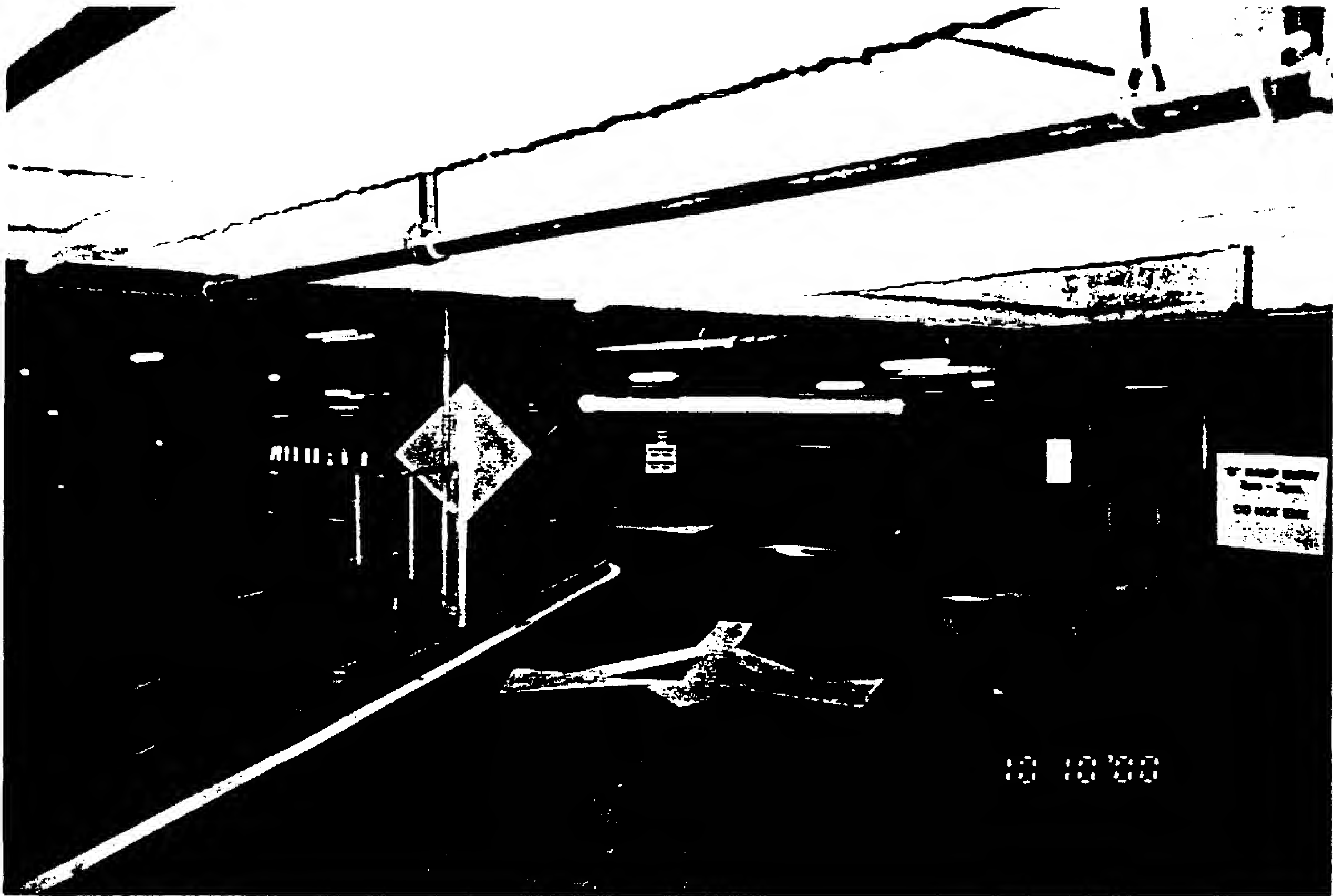


Photo #13: Subsurface parking garage, Red Area, level B-2.

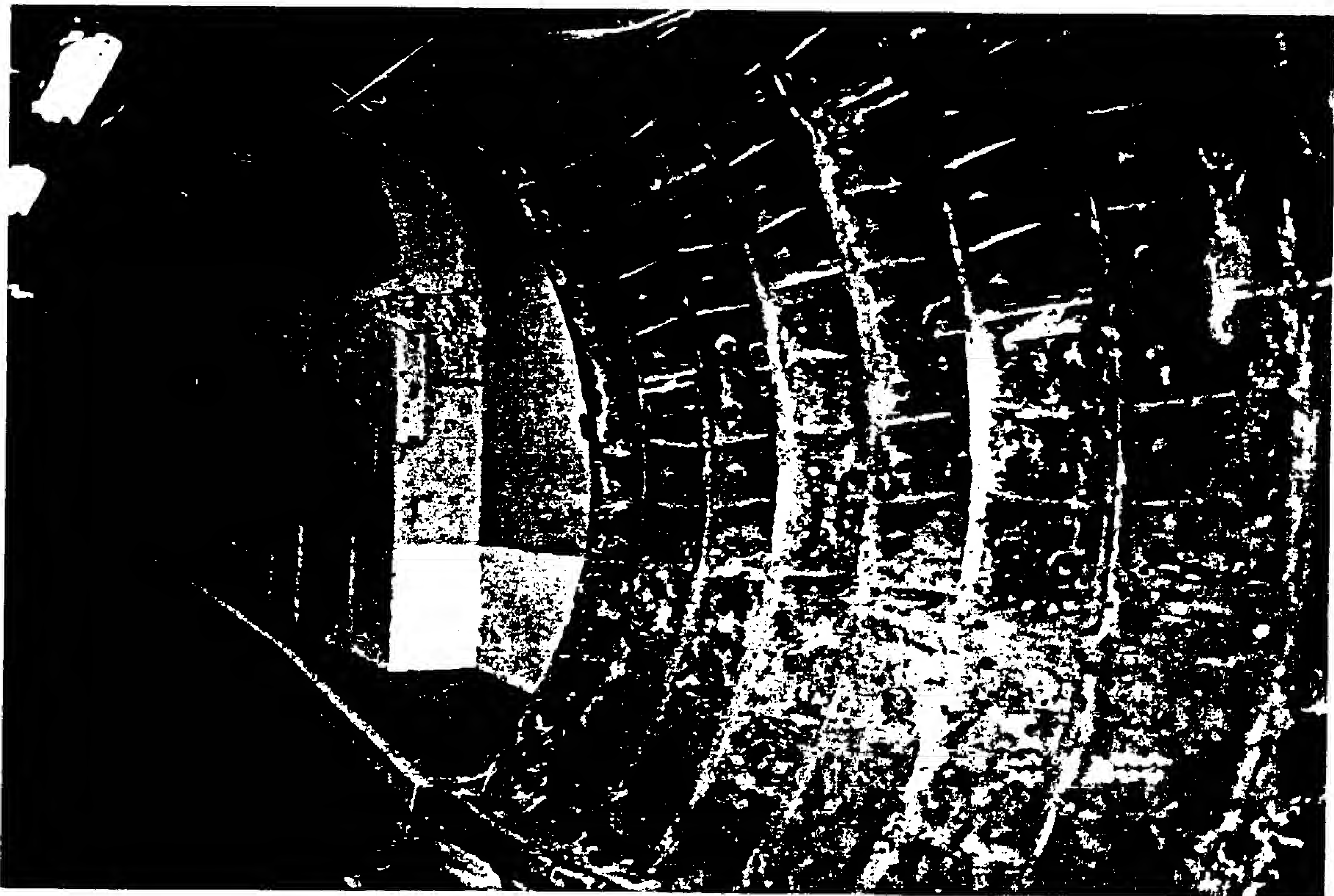


Photo #14: Subsurface ramp-L.



Photo #15: Trash compactor, loading dock area.



Photo #16: Asbestos waste dumpster, loading dock area.



Photo =17: Hazardous Waste Storage Area, loading dock area.



Photo =18: Hazardous Waste Storage Area, loading dock area.



Photo #19: Waste batteries, Hazardous Waste Storage Area.

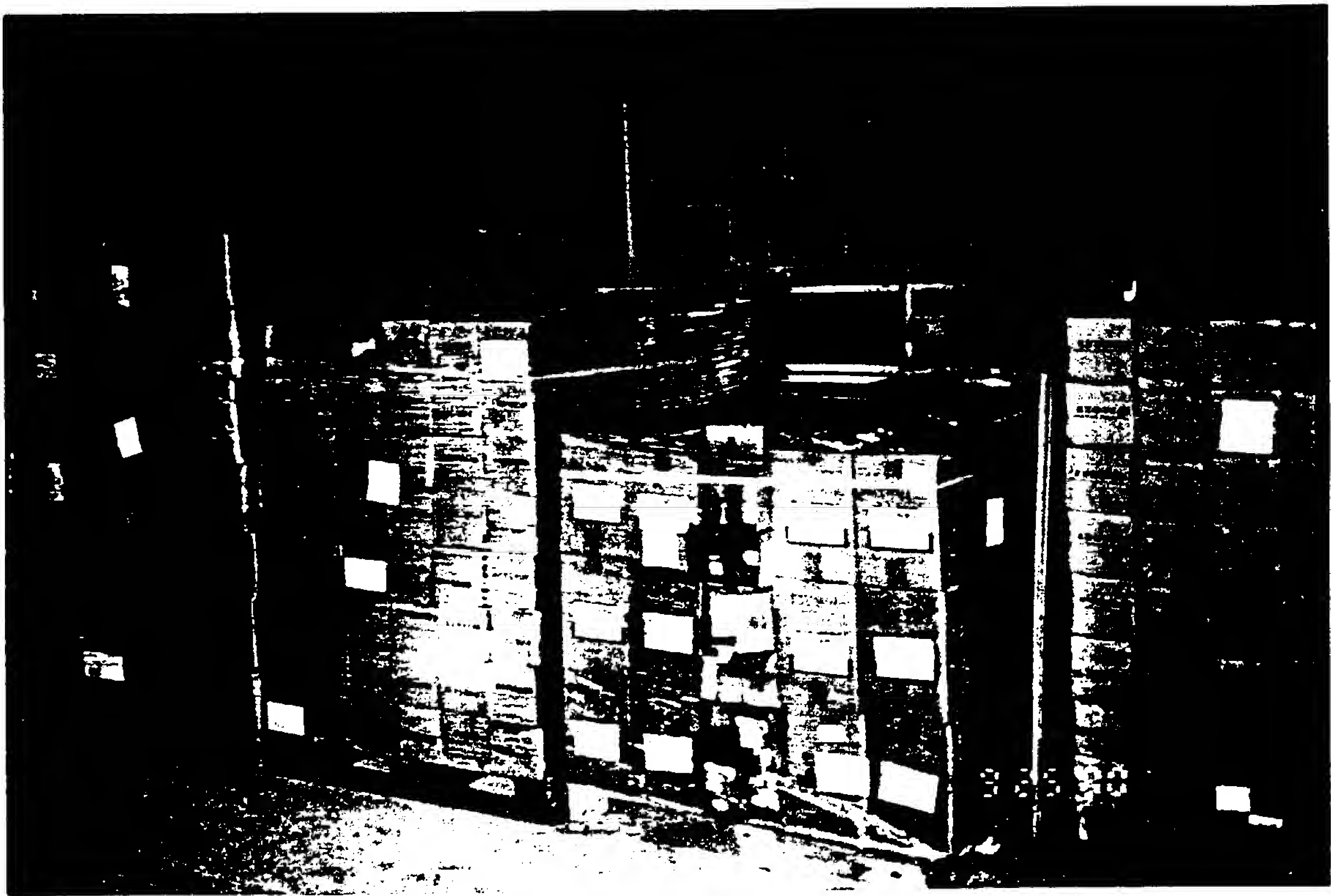


Photo #20: Waste fluorescent lights.

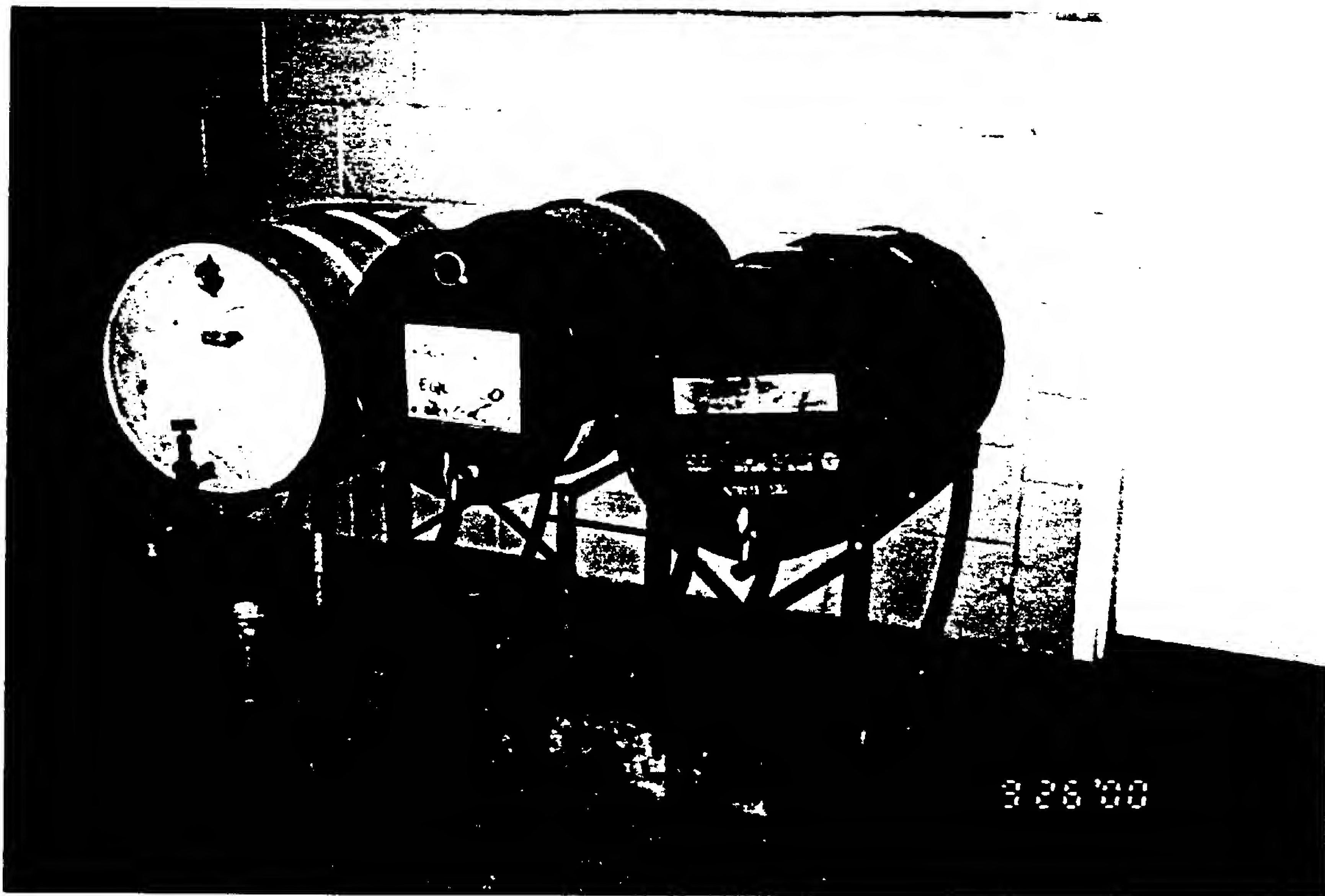


Photo #21: 55-Gallon drums, Motor Oil, Emergency Generator Plant, level B-6.



Photo #22: 55-Gallon drum, Turbine Oil, River Water Pump Station.

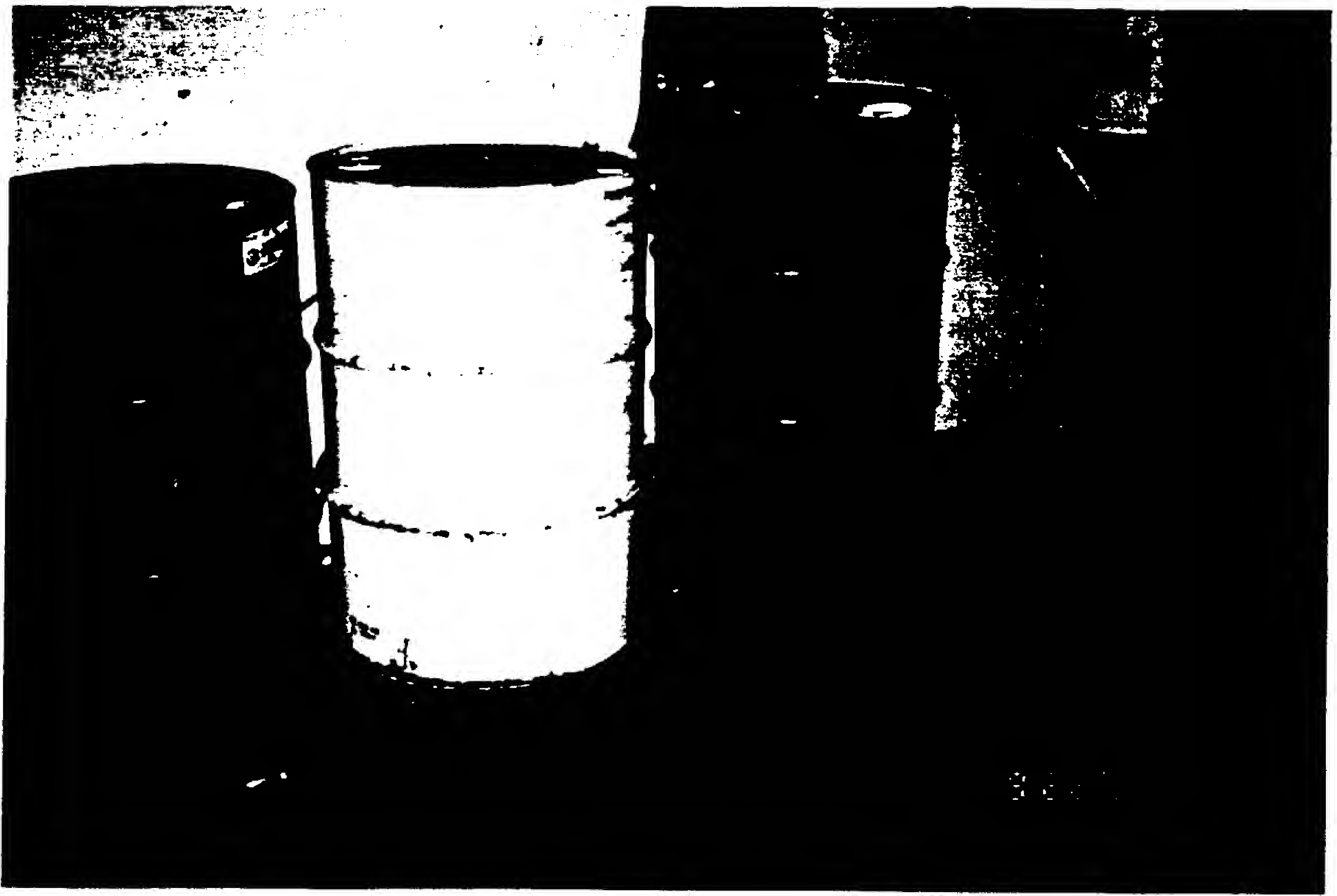


Photo #23: 55-Gallon drums, Propylene Glycol, Lube Oil, and Waste Oil,
River Water Pump Station.



Photo #24: 55-Gallon drums, new Lube and Hydraulic Oil, Maintenance Stock Room-E,
One World Trade Center.



Photo #25: General Storage, Maintenance Stock Room-A, One World Trade Center, level B-1.



Photo #26: Flammable Liquid Storage, Maintenance Stock Room-A, One World Trade Center, level B-1.

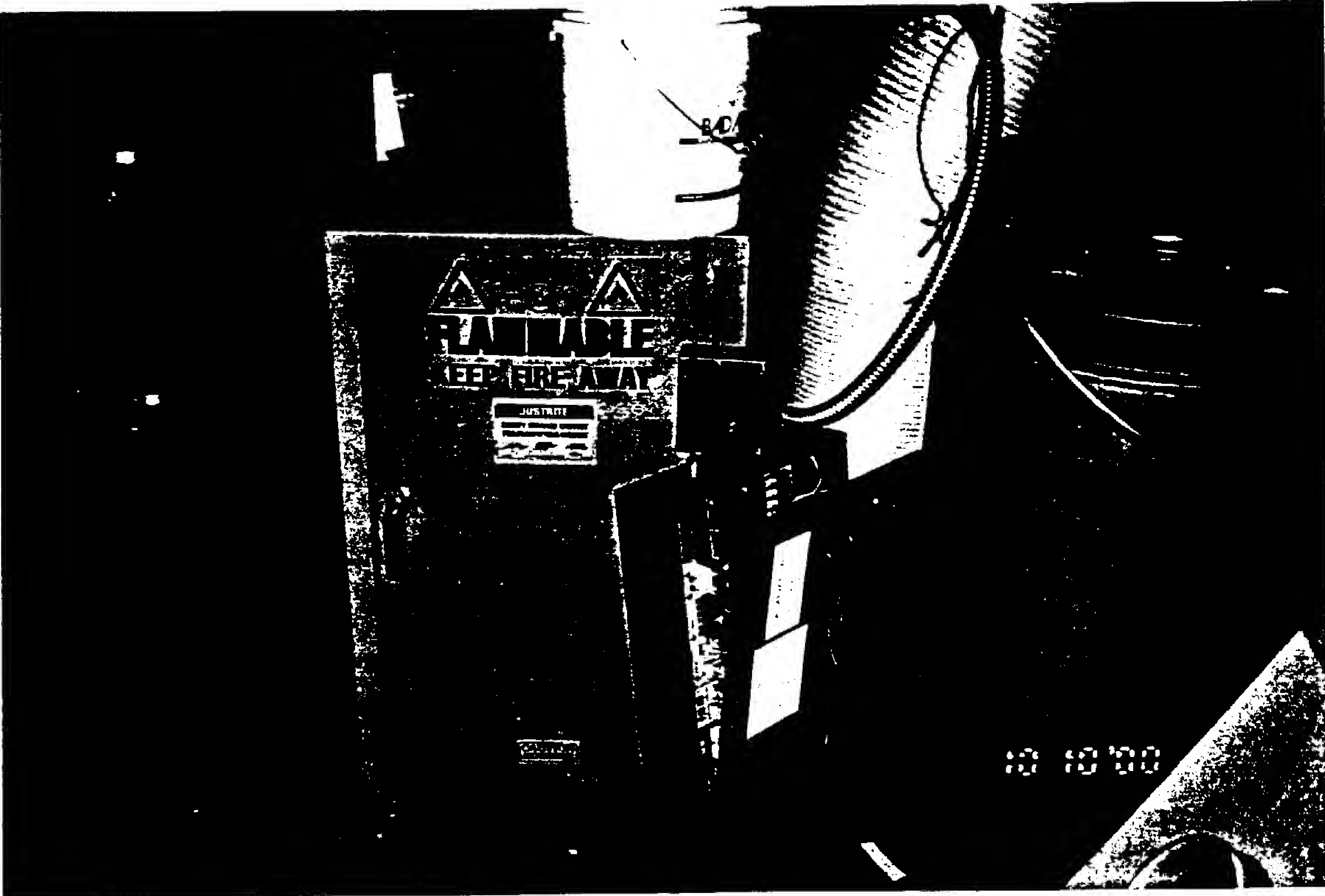


Photo #27: Flammable Liquid Storage, Motor Shop, level B-4.



Photo #28: Paint Storage, Painters Office, Two World Trade Center, level B-2.

Photo #29: Flammable
Liquid Storage, Paint Shop,
Two World Trade Center,
Level B-2.

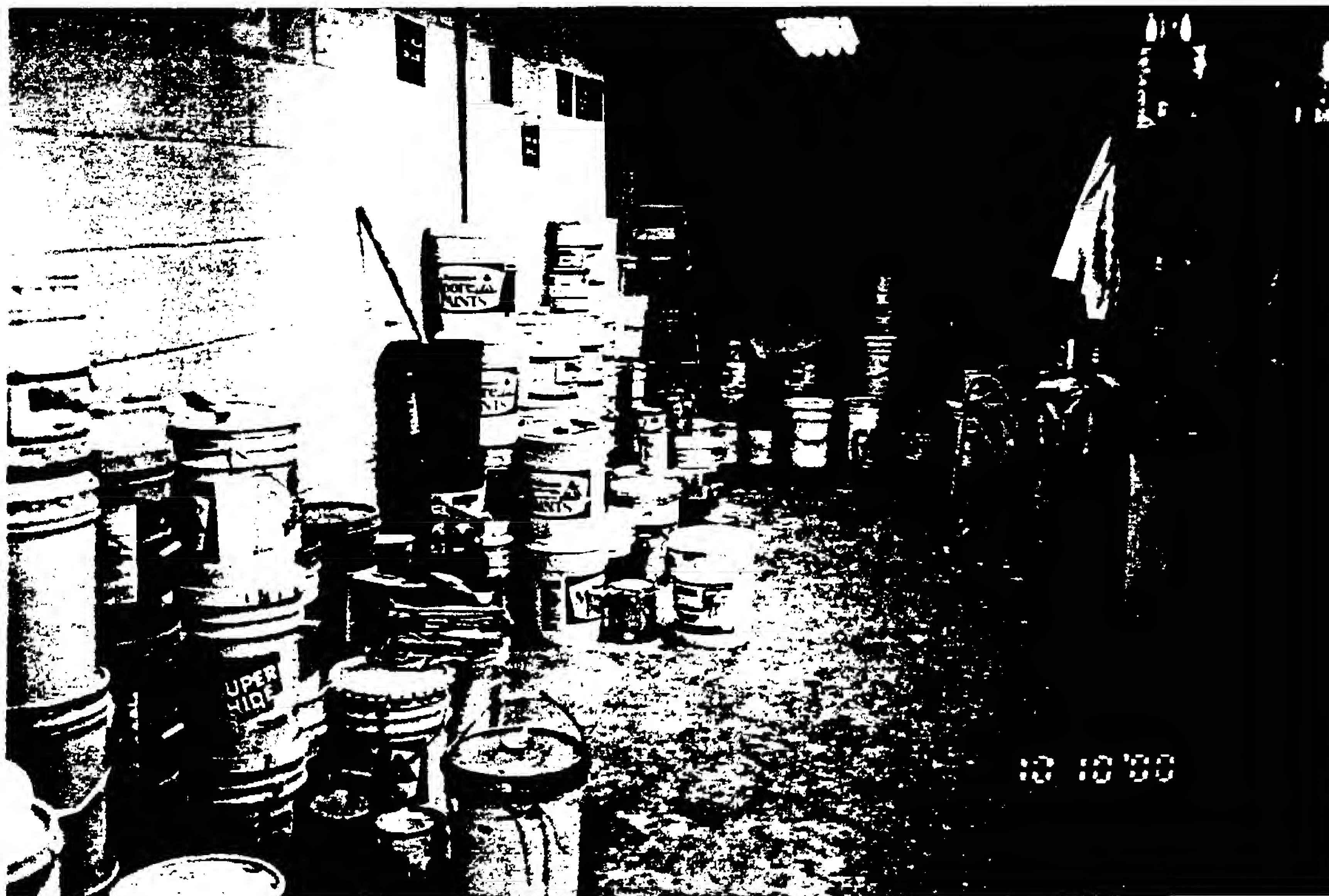
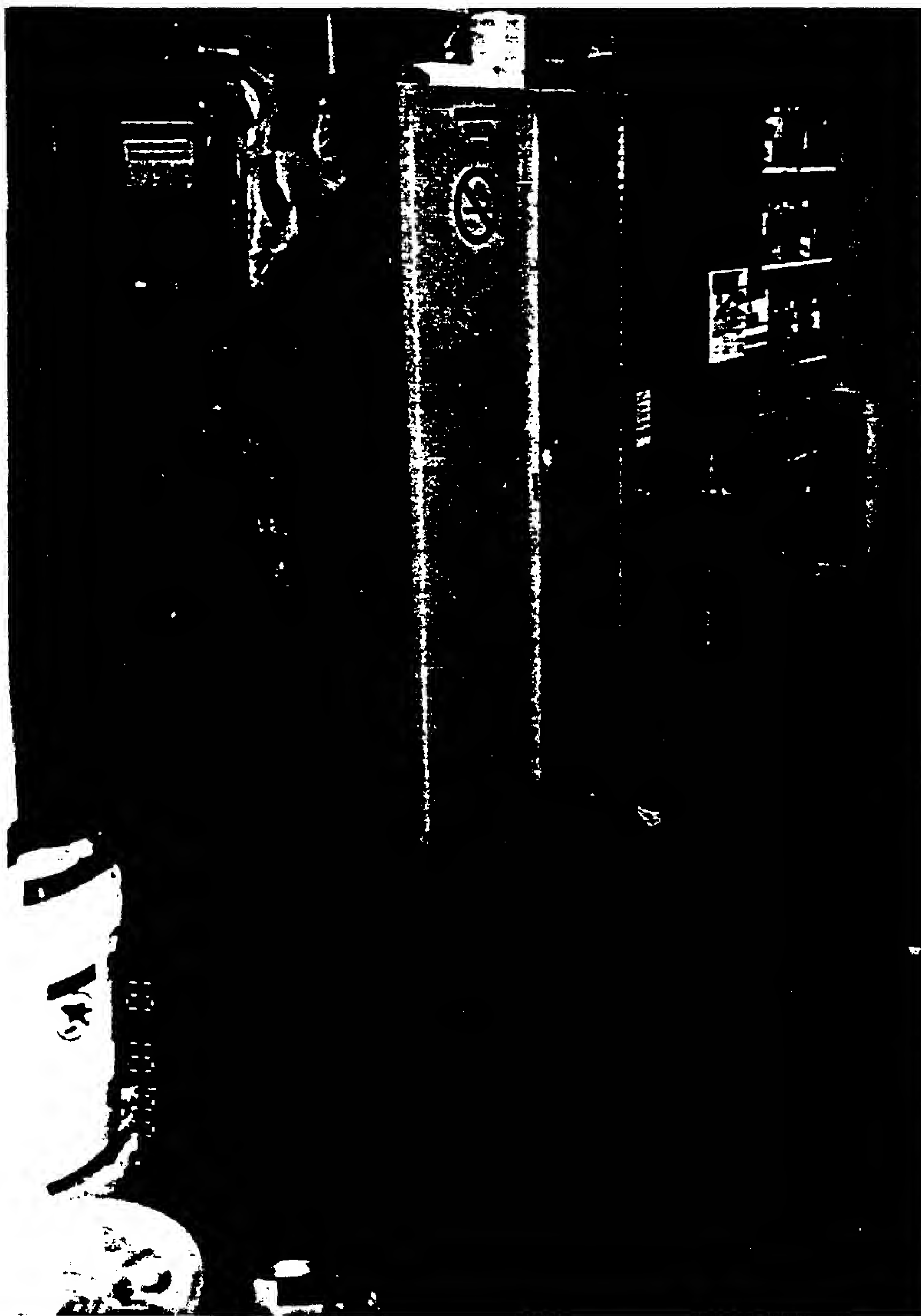


Photo #30:
Paint Shop,
Two World
Trade Center,
level B-2.

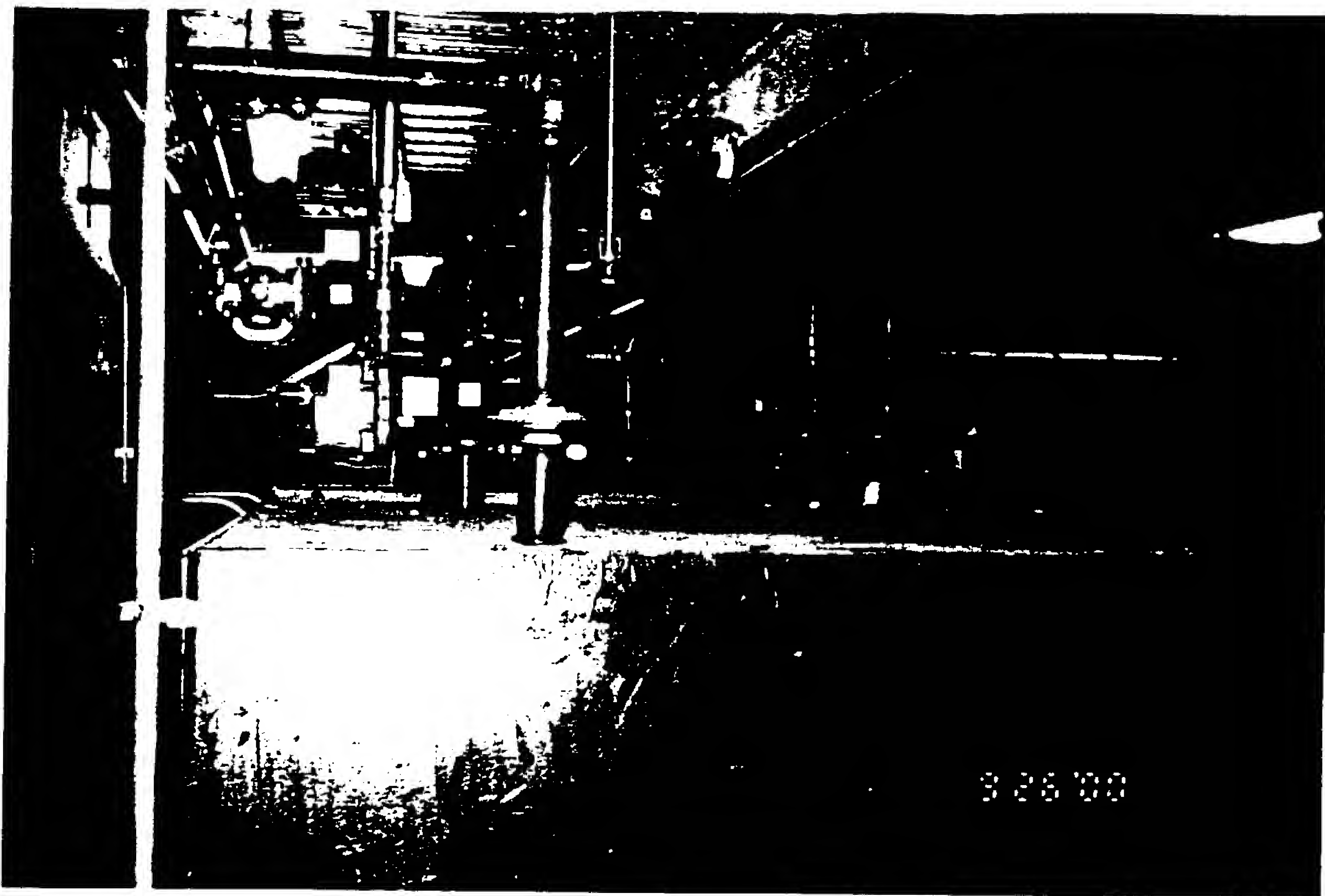


Photo #31: 2 x 10,000-Gallon Fuel Oil Tanks, Five World Trade Center.

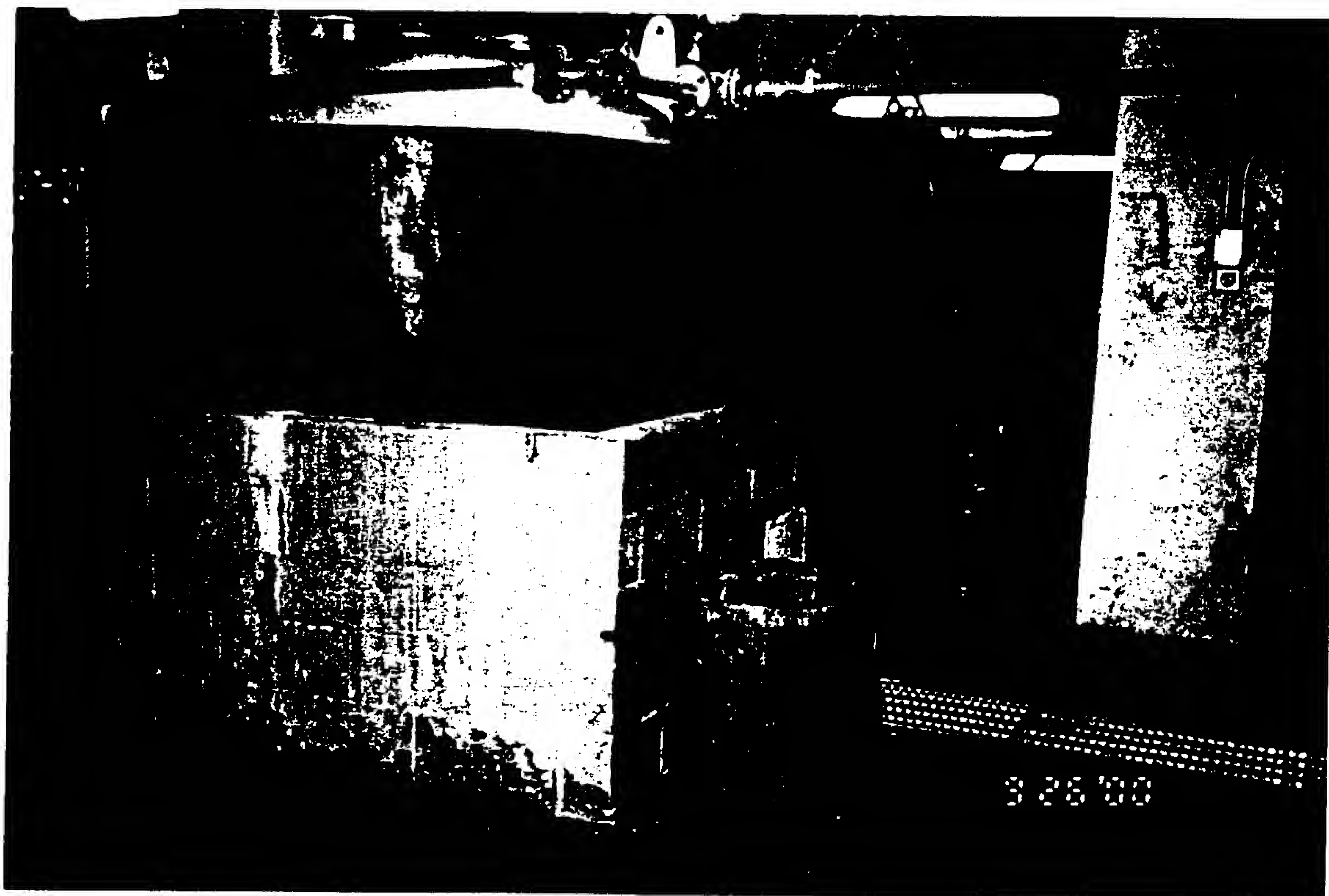


Photo #32: 2 x 2,000-Gallon Sodium Hypochlorite Tanks, River Water Pump Station.

Photo #33: Vault for
5,000-gallon Fuel Oil Tank,
Emergency Generator Plant,
One World Trade Center,
Level B-6.



Photo #34: Vault for
10,000-gallon Fuel Oil Tank,
Emergency Generator Plant,
One World Trade Center,
level B-6.

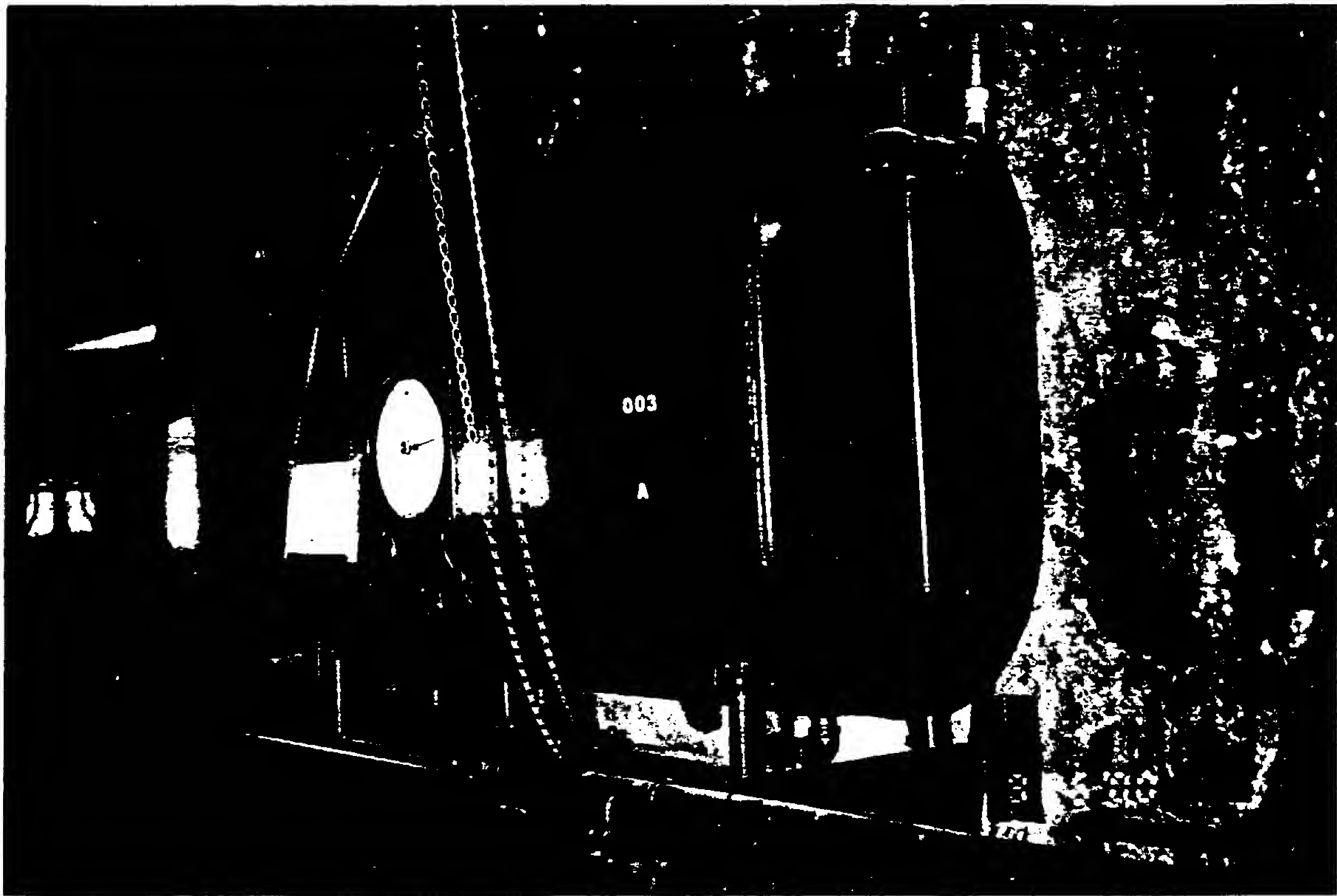


Photo #35: 2 x 275-Gallon Fuel Oil Tank, Emergency Generator Plant,
One World Trade Center, level B-6.



Photo #36: Spill Container Door, Emergency Generator Plant,
One World Trade Center, level B-6.

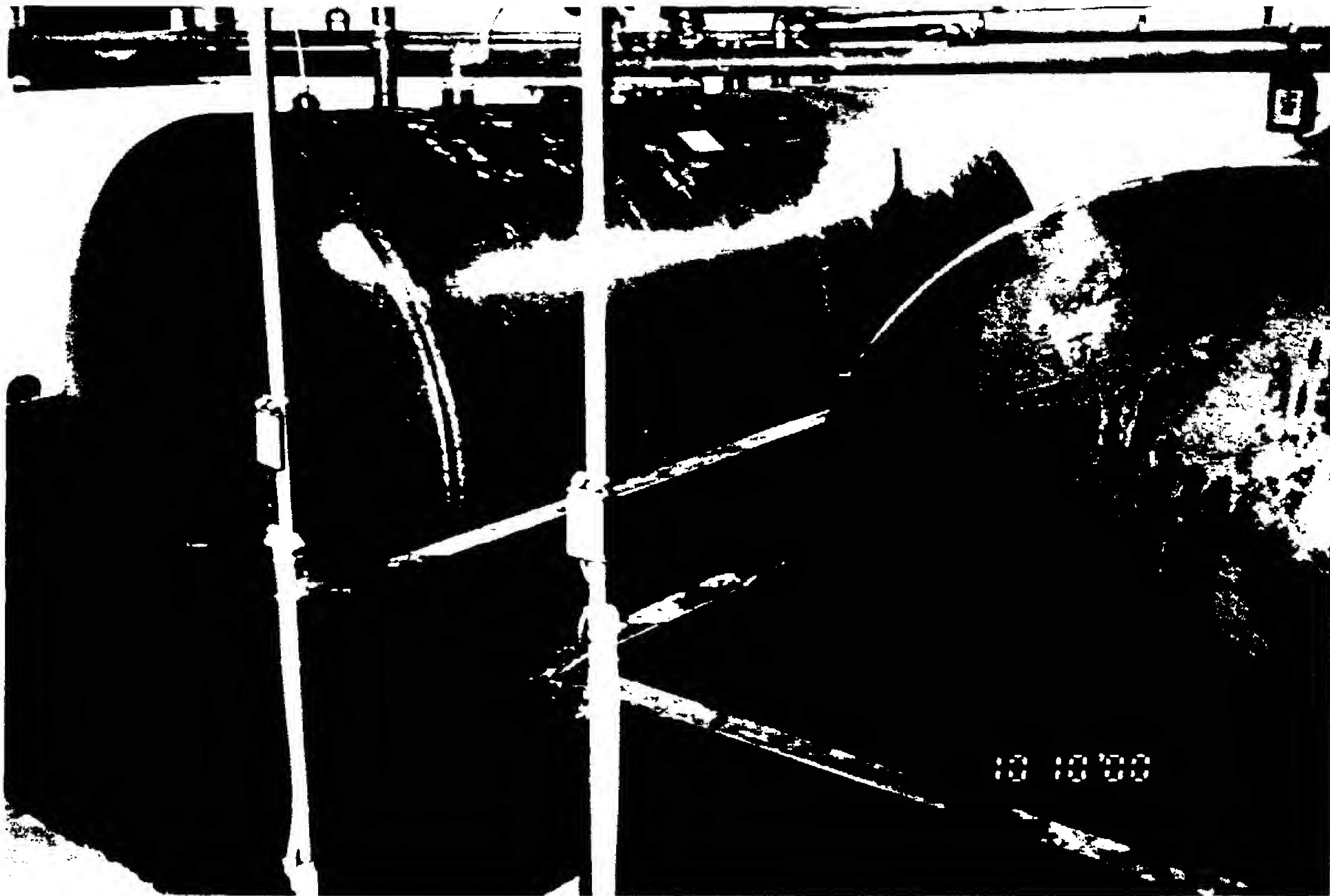


Photo #37: 2 x 2,500-Gallon Fuel Oil Tanks, Instinet Area, One World Trade Center, level B-6.

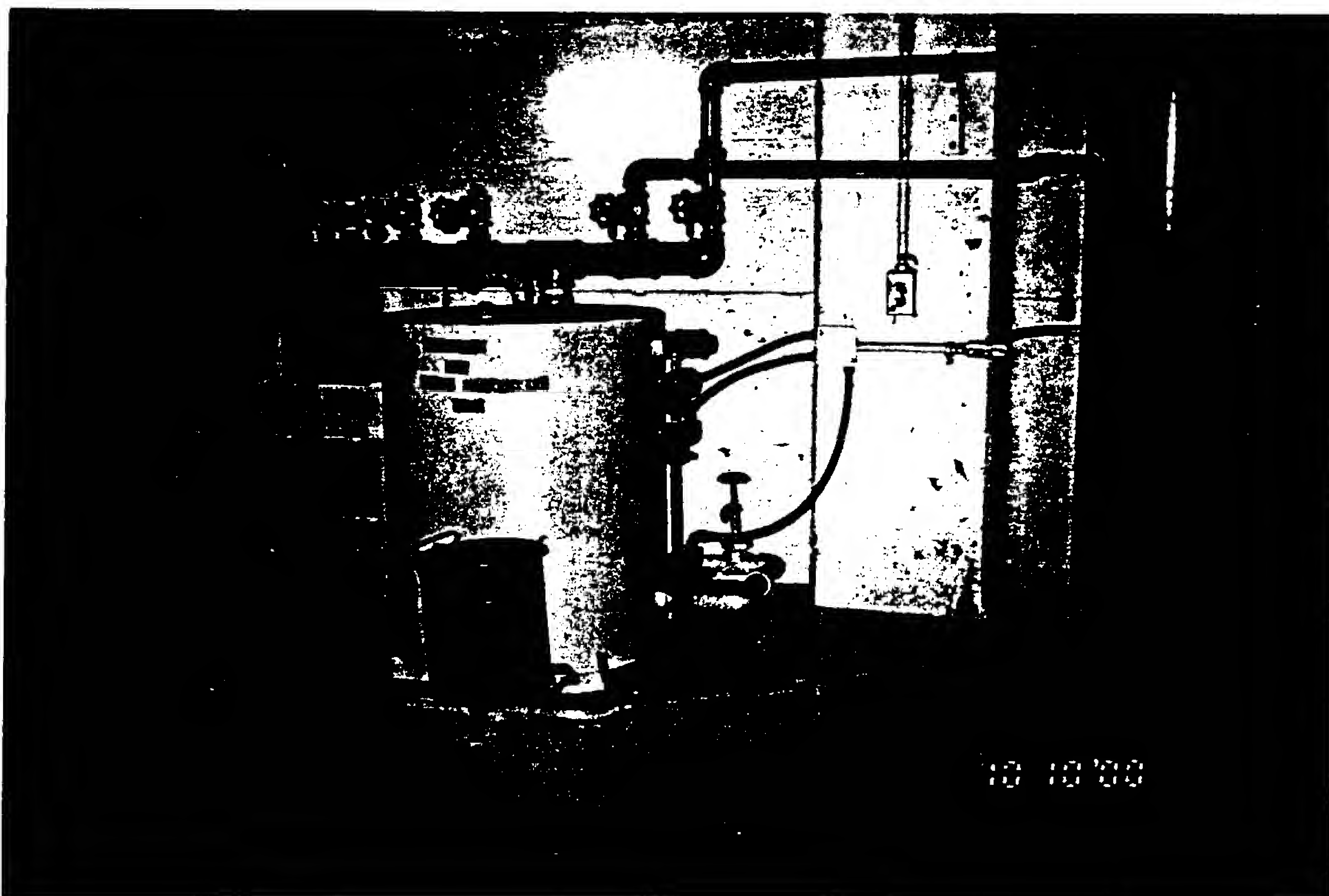


Photo #38: 100-Gallon Fuel Oil Tank, Verizon Area, One World Trade Center, level B-6.

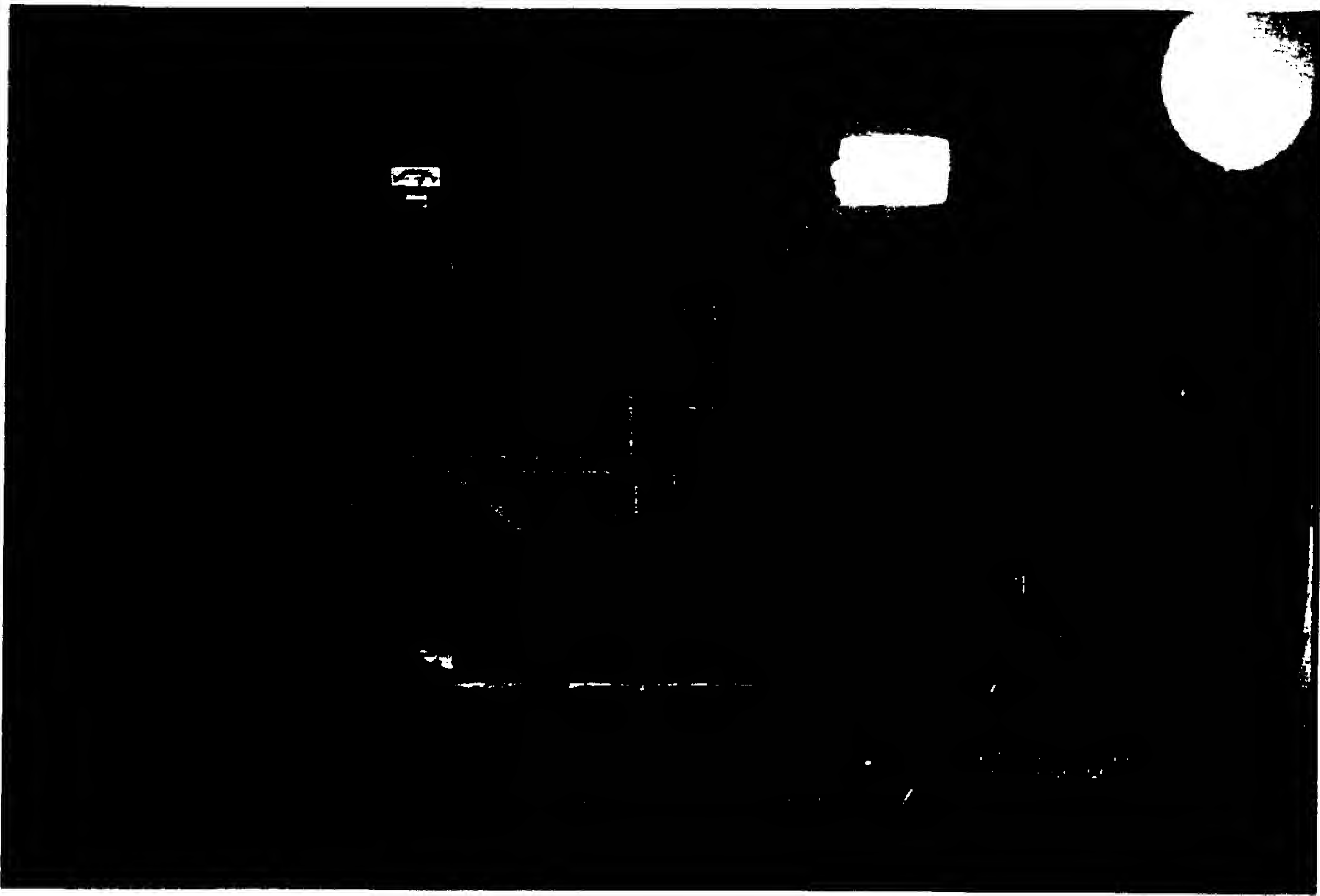


Photo #39: 275-Gallon Fuel Oil Tank, Verizon Area, One World Trade Center, level B-6.

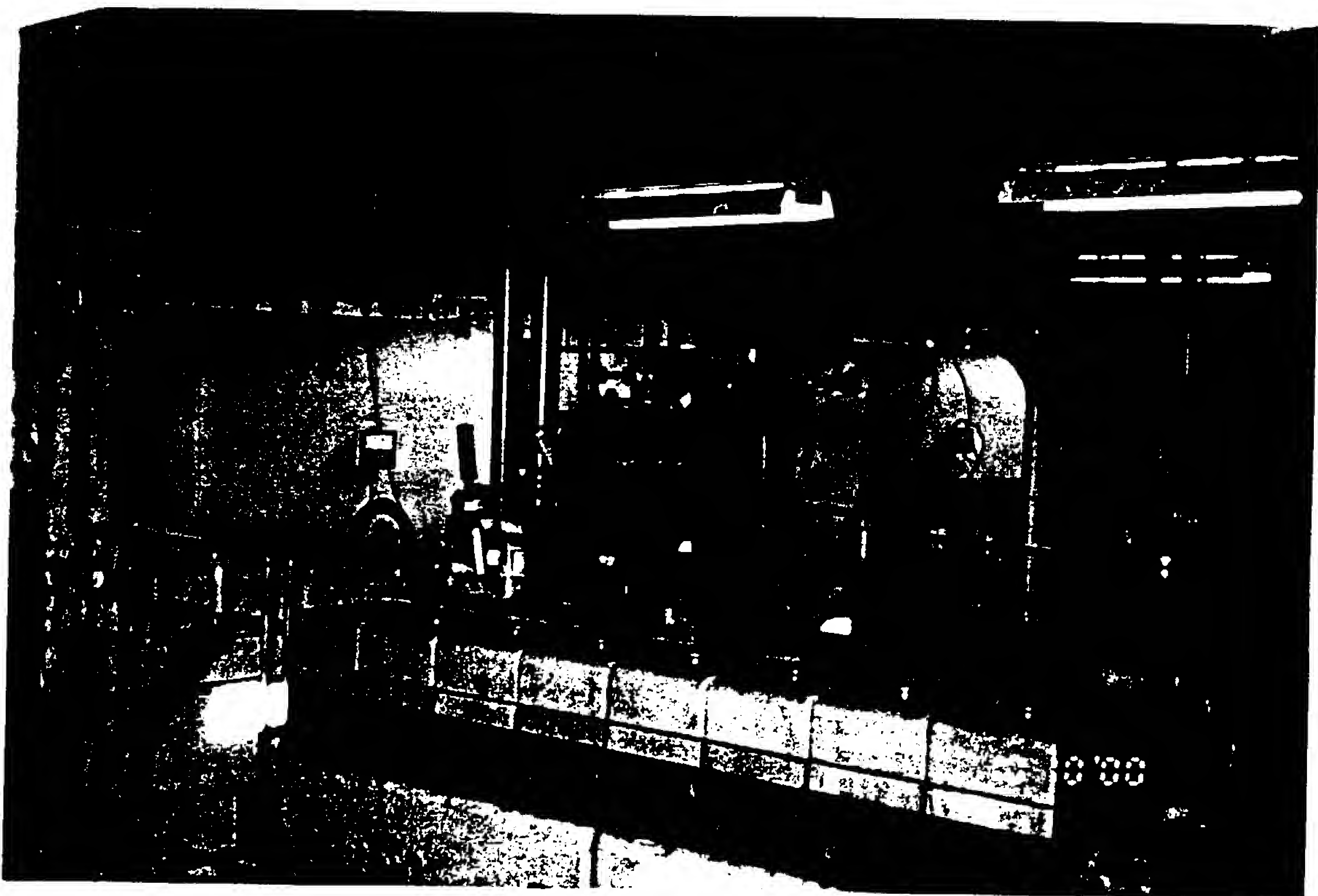


Photo #40: 2 x 275-Gallon Fuel Oil Tanks, Verizon Area, One World Trade Center, level B-6.

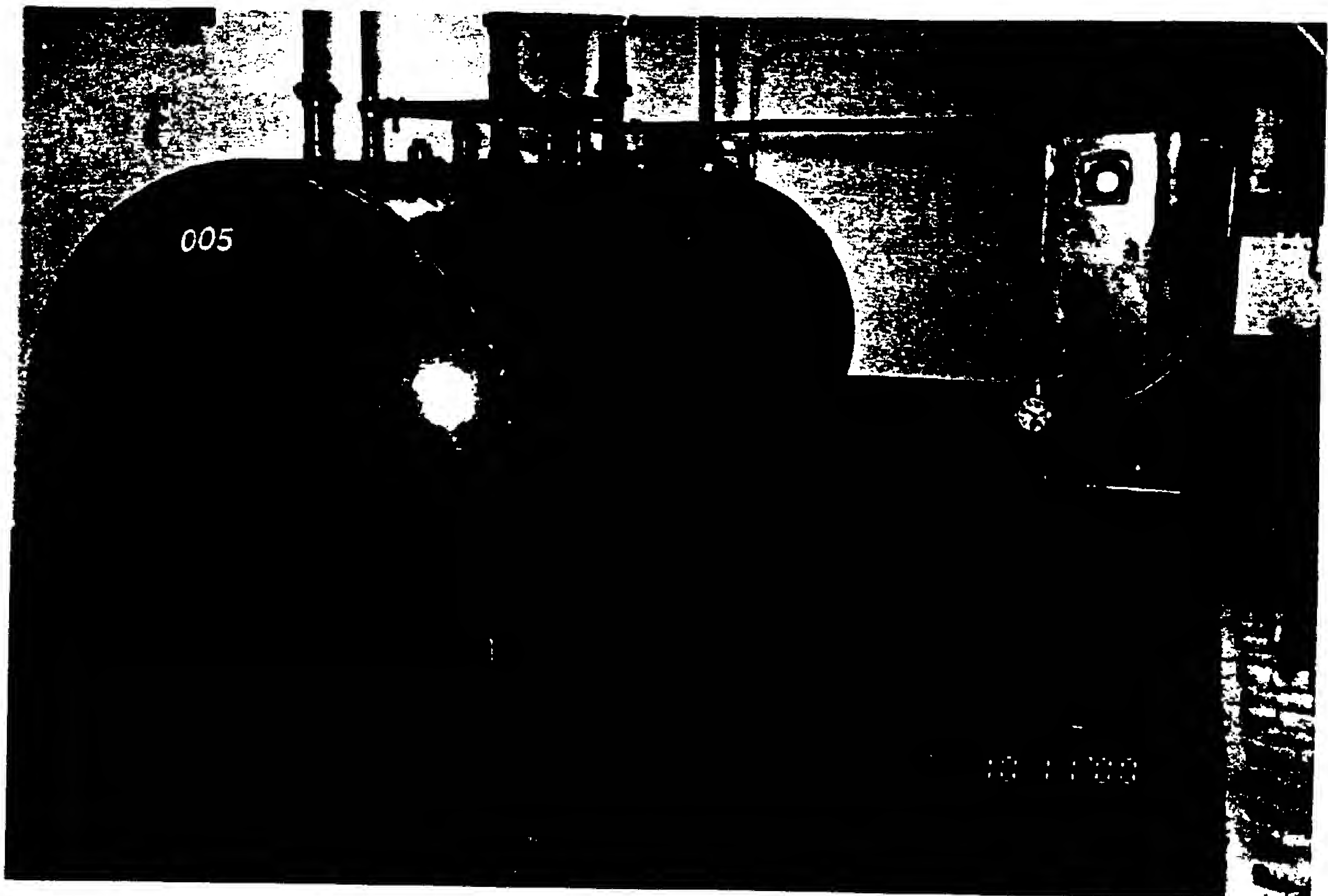


Photo #41: 1,080-Gallon Fuel Oil Tank, Deutsche Bank Area,
Four World Trade Center, level B-1.

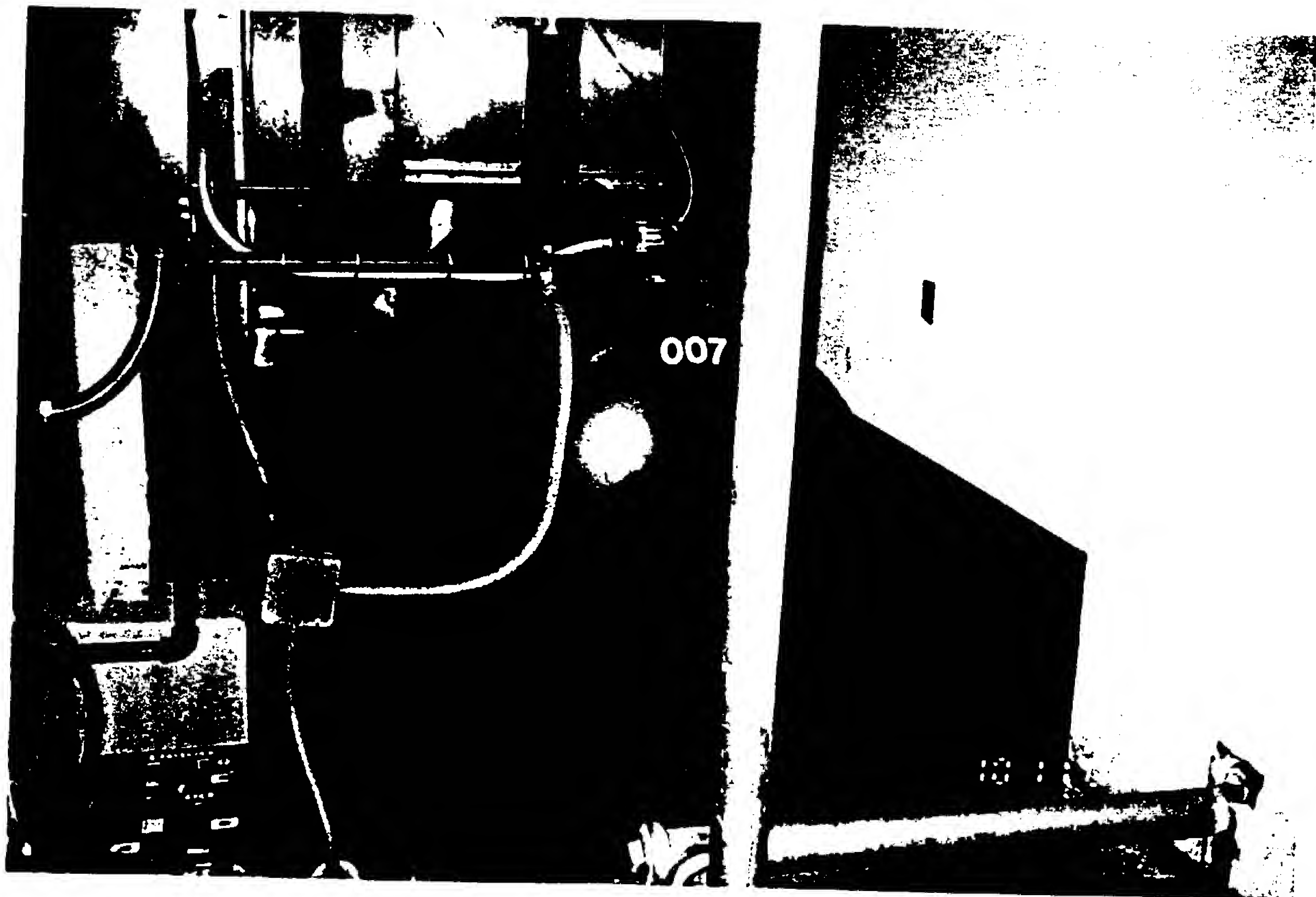


Photo #42: 275-Gallon Fuel Oil Tank, Deutsche Bank Area,
Four World Trade Center, level B-1.



Photo #43: Elevator Pit FE5, One World Trade Center, level B-4.



Photo #44: Room-1, adjacent to Elevator Pit FE5, One World Trade Center, level B-4.

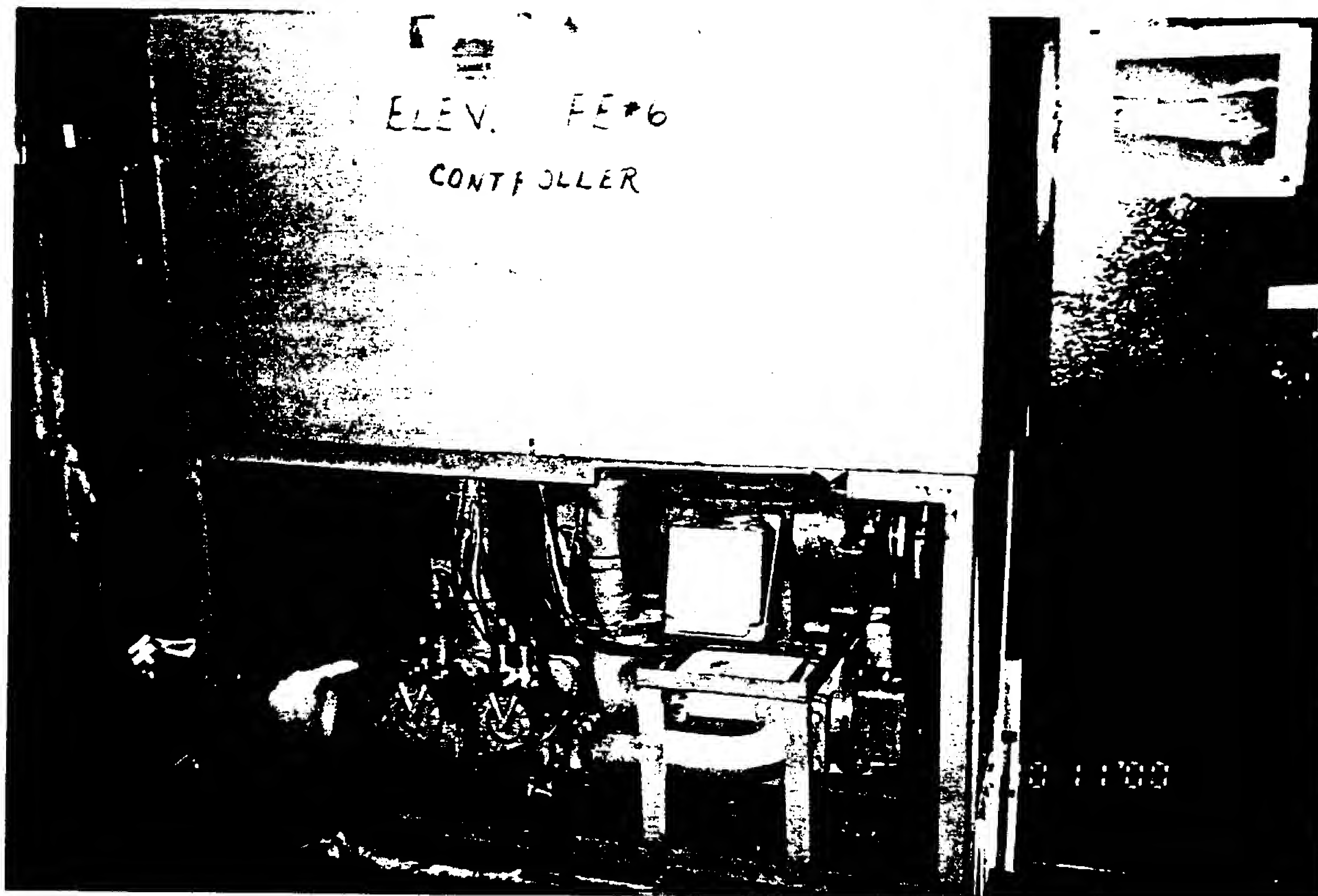


Photo #45: Motor Room, Elevator FE6, Two World Trade Center, level B-4.

DataMap Technology Corporation

Environmental FirstSearchTM Report

TARGET PROPERTY:

one WORLD TRADE CENTER

NEW YORK CITY NY 10081

Job Number: 000095

PREPARED FOR:

R.W. Crandlemere & Associates, Inc.

549 Columbian Street

Weymouth, MA 02190

09-12-00



Tel: (781) 320-3720

Fax: (781) 320-3715

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Environmental FirstSearch

Search Summary Report

Target Site: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

FirstSearch Summary

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2 >	ZIP	TOTALS
NPL	Y	07-27-00	0.50	0	0	0	0	-	0	0
CERCLIS	Y	08-10-00	0.25	1	0	1	-	-	0	2
RCRA TSD	Y	06-24-00	0.25	0	0	0	-	-	0	0
RCRA COR	Y	06-24-00	0.50	0	0	0	0	-	0	0
RCRA GEN	Y	06-24-00	0.25	11	22	30	-	-	0	63
RCRA NLR	N	10-18-99	0.25	-	-	-	-	-	-	-
ERNS	Y	01-06-00	0.25	2	6	10	-	-	0	18
NPDES	N	10-18-99	0.25	-	-	-	-	-	-	-
FINDS	N	09-21-99	0.25	-	-	-	-	-	-	-
TRIS	N	07-16-98	0.25	-	-	-	-	-	-	-
State Sites	Y	04-01-00	0.50	0	0	0	0	-	0	0
Spills-1990	N	07-01-00	0.25	-	-	-	-	-	-	-
Spills-1980	N	10-01-99	0.25	-	-	-	-	-	-	-
SWL	Y	12-01-99	0.25	0	0	0	-	-	0	0
Permits	N	NA	0.25	-	-	-	-	-	-	-
Other	N	NA	0.25	-	-	-	-	-	-	-
REG UST/AST	Y	07-01-00	0.25	7	29	37	-	-	0	73
Leaking UST	Y	07-01-00	0.25	0	2	3	-	-	0	5
State Wells	Y	02-02-98	0.50	0	0	0	0	-	0	0
Aquifers	N	NA	0.50	-	-	-	-	-	-	-
ACEC	N	NA	0.50	-	-	-	-	-	-	-
Wetlands	N	12-31-99	0.50	-	-	-	-	-	-	-
Floodplains	Y	09-01-96	0.50	2	3	4	13	-	0	22
Receptors	Y	01-01-95	0.50	0	0	0	1	-	0	1
Nuclear Permits	N	04-30-99	0.50	-	-	-	-	-	-	-
Historic/Landmark	N	09-01-99	0.50	-	-	-	-	-	-	-
Federal Land Use	N	06-17-98	0.50	-	-	-	-	-	-	-
Federal Wells	N	NA	0.50	-	-	-	-	-	-	-
Releases(Air/Water)	Y	NA	0.25	0	0	0	-	-	1	1
- TOTALS -				23	62	85	14	0	1	185

Notice of Disclaimer

Due to the limitations, constraints, inaccuracies and incompleteness of government information and computer mapping data currently available to DataMap Technology Corp., certain conventions have been utilized in preparing the locations of all federal, state and local agency sites residing in DataMap Technology Corp.'s databases. All EPA NPL and state landfill sites are depicted by a rectangle approximating their location and size. The boundaries of the rectangles represent the eastern and western most longitudes; the northern and southern most latitudes. As such, the mapped areas may exceed the actual areas and do not represent the actual boundaries of these properties. All other sites are depicted by a point representing their approximate address location and make no attempt to represent the actual areas of the associated property. Actual boundaries and locations of individual properties can be found in the files residing at the agency responsible for such information.

Waiver of Liability

Although DataMap Technology Corp. uses its best efforts to research the actual location of each site, DataMap Technology Corp. does not and can not warrant the accuracy of these sites with regard to exact location and size. All authorized users of DataMap Technology Corp.'s services proceeding are signifying an understanding of DataMap Technology Corp.'s searching and mapping conventions, and agree to waive any and all liability claims associated with search and map results showing incomplete and or inaccurate site locations.

Environmental FirstSearch
Site Information Report

Request Date: 09-12-00
Requestor Name: Ginny Berry
Standard: ASTM

Search Type: AREA
Job Number: 000095
FILTERED REPORT

Target Address: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

Demographics

Sites: 185	Non-Geocoded: 1	Population: NA
Radon: NA		

Site Location

	<u>Degrees (Decimal)</u>	<u>Degrees (Min/Sec)</u>		<u>UTMs</u>
Longitude:	-74.012215	-74::44	Easting:	583438.479
Latitude:	40.711325	40:42:41	Northing:	4506969.969
			Zone:	18

Comment

Comment: WORLD TRADE CENTER, NYC

Additional Requests/Services

Adjacent ZIP Codes: 0.00 Mile(s)

Services:

ZIP				
Code	City Name	ST	Dist/Dir	Sel

	<u>Requested?</u>	<u>Date</u>
Sanborns	N	
Aerial Photographs	N	
Topo Maps (hardcopy)	N	
City Directories	N	
Title Search	N	
Municipal Reports	N	
Online Topo Map	N	

Environmental FirstSearch

Sites Summary Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

TOTAL: 185 **GEOCODED:** 184 **NON GEOCODED:** 1 **SELECTED:** 99

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
83	ERNS	268421/UNKNOWN	72 S 1 WORLD TRADE CENTER NEW YORK NY 10047	0.00 -	14
78	ERNS	506484/UNKNOWN	WORLD TRADE CENTER NEW YORK NY 10007	0.00 -	60
91	UST	134 WILSHIRE HOUSE PBS2-245984/ACTIVE PBS FACILITY	134 WEST 58TH ST NEW YORK NY 10019	0.00 -	69
113	UST	BARGE JOAN K MOS0-0363/INACTIVE	TWO WORLD TRADE CENTER NEW YORK NY 10048	0.00 -	20
116	UST	BELL ATLANTIC PBS2-344737/ACTIVE PBS FACILITY	2 WORLD TRADE CENTER NEW YORK NY 10048	0.00 -	20
15	RCRAGN	CHEMICAL BANK NYD986895084/LGN	1 WORLD TRADE CENTER 83RD FL NEW YORK NY 10048	0.00 -	14
23	RCRAGN	EBASCO SERVICES INC NYD986997930/SGN	TWO WORLD TRADE CENTER - B1 & NEW YORK NY 10048	0.00 -	20
164	FLOODPLAINS	FEMA FLOOD PLAIN 1155/100 YEAR	NY	0.00 -	119
166	FLOODPLAINS	FEMA FLOOD PLAIN 1163/500 YEAR	NY	0.00 -	121
27	RCRAGN	FUJI PHOTO FILM USA INC NYR000039487/SGN	3 WORLD TRADE CTR - HH ROOM NEW YORK NY 10007	0.00 -	24
43	RCRAGN	NEDLLOYD INC NYD045441615/LGN	5 WORLD TRADE CENTER STE 617 NEW YORK NY 10048	0.00 -	40
52	RCRAGN	NYNEX MATERIEL ENTERPRISES CO NYD986896462/SGN	2 WORLD TRADE CENTER NEW YORK NY 10048	0.00 -	20
140	UST	ONE WORLD TRADE CENTER PBS2-602234/ACTIVE PBS FACILITY	1 WORLD TRADE CENTER NEW YORK NY 10048	0.00 -	14
142	UST	PORT AUTHORITY OF NEW YORK / N. JER PBS2-293563/ACTIVE PBS FACILITY	1 WORLD TRADE CENTER 88TH FLOO NEW YORK NY 10048	0.00 -	14
143	UST	PORT AUTHORITY OF NY & NJ PBS2-604231/ACTIVE PBS FACILITY	FIVE WORLD TRADE CENTER NEW YORK NY 10007	0.00 -	40
58	RCRAGN	US CUSTOMS HOUSE NY1470057802/SGN	6 WORLD TRADE CENTER-BASEMENT NEW YORK NY 10048	0.00 -	2
59	RCRAGN	US CUSTOMS LABORATORY NYD078892510/SGN	6 WORLD TRADE CENTER RM 867 NEW YORK NY 10048	0.00 -	2
2	CERCLIS	US CUSTOMS SVC/MERCHANDISE CONTROL NY4470002433/N	6 WORLD TRADE CENTER ROOM 114 NEW YORK NY 10048	0.00 -	2
60	RCRAGN	VISTA INTL HOTEL NYD047043856/SGN	3 WORLD TRADE CTR NEW YORK NY 10048	0.00 -	24
156	UST	WORLD TRADE CENTER CBS2-000204/ACTIVE FACILITY	RIVER WATER PUMP STATION NEW YORK NY 10047	0.00 -	14

Environmental FirstSearch

Sites Summary Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

TOTAL: 185 **GEOCODED:** 184 **NON GEOCODED:** 1 **SELECTED:** 99

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
63	RCRAGN	WORLD TRADE CENTER - RAYTHEON NYR000021105/LGN	2 WORLD TRADE CENTER - 77TH FL NEW YORK NY 10048	0.00 -	20
64	RCRAGN	WORLD TRADE CENTER OPERATIONS NYD981077480/LGN	1 WORLD TRADE CENTER B2 107 NEW YORK NY 10048	0.00 -	14
65	RCRAGN	WPIX FM & TV TRANSMITTER NYD982281412/SGN	#1 WORLD TRADE CENTER NEW YORK NY 10048	0.00 -	14
110	UST	AMERICAN EXPRESS TOWER C PBS2-297828/ACTIVE PBS FACILITY	200 VESEY STREET NEW YORK NY 10285	0.01 NE	19
115	UST	BELL ATLANTIC PBS2-344966/ACTIVE PBS FACILITY	140 WEST STREET NEW YORK NY 10007	0.01 NE	42
21	RCRAGN	CUSHMAN & WAKEFIELD - AMER NYR000059063/LGN	200 VESEY ST NEW YORK NY 10007	0.01 NE	19
45	RCRAGN	NEW YORK TELEPHONE CO NYD980582654/LGN	140 WEST ST NEW YORK NY 10007	0.01 NE	42
87	UST	114 LIBERTY ST ASSOCIATES PBS2-332941/ACTIVE PBS FACILITY	114 LIBERTY ST NEW YORK NY 10006	0.01 SW	67
9	RCRAGN	BANKERS TRUST NYD176893428/LGN	130 LIBERTY ST NEW YORK NY 10006	0.01 SW	9
126	UST	ENGINE 10 / LADDER 10 PBS2-357685/ACTIVE PBS FACILITY	124 LIBERTY STREET NEW YORK NY 10006	0.01 SW	93
161	LUST	NEW YORK CITY FD ENG 10 9610078/ACTIVE	124 LIBERTY ST NEW YORK NY 10006	0.01 SW	93
165	FLOODPLAINS	FEMA FLOOD PLAIN 1154/500 YEAR	NY	0.02 NE	120
146	UST	SALOMON SMITH BARNEY PBS2-601553/ACTIVE PBS FACILITY	7 WORLD TRADE CENTER NEW YORK NY 10048	0.02 NE	108
147	UST	SEVEN WORLD TRADE CENTER PBS2-602283/ACTIVE PBS FACILITY	7 WORLD TRADE CENTER NEW YORK NY 10048	0.02 NE	108
33	RCRAGN	METROPOLITAN LIFE INSURANCE CO NYR000028514/SGN	22 CORTLANDT ST NEW YORK NY 10007	0.02 SE	30
82	ERNS	501008/UNKNOWN	BATTERY PARK CITY NORTH COVE M NEW YORK NY 10280	0.03 NW	63
100	UST	20 VESEY STREET PBS2-107026/ACTIVE PBS FACILITY	20 VESEY STREET NEW YORK NY 10007	0.04 SE	77
90	UST	130 CEDAR STREET PBS2-511536/ACTIVE PBS FACILITY	130 CEDAR STREET NEW YORK NY 10006	0.04 SW	23
167	FLOODPLAINS	FEMA FLOOD PLAIN 1164/500 YEAR	NY	0.04 SW	122
26	RCRAGN	FITCH GRAPHICS NYD057293557/SGN	130 CEDAR ST NEW YORK NY 10006	0.04 SW	23

Environmental FirstSearch

Sites Summary Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

TOTAL: 185 **GEOCODED:** 184 **NON GEOCODED:** 1 **SELECTED:** 99

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
56	RCRAGN	REALISTIC PRINTING CORP NYD116008889/LGN	130 CEDAR ST 7TH FLOOR NEW YORK NY 10006	0.04 SW	23
66	ERNS	CON EDISON 643990/FIXED FACILITY	90 BARCLAY ST MANHATTAN NY 10007	0.05 NE	50
67	ERNS	CON EDISON 373904/FIXED FACILITY	BARCLAY STREET NEW YORK NY 10007	0.05 NE	16
75	ERNS	CON EDISON 608365/FIXED FACILITY	BARKLEY STREET BETWEEN CHURCH NEW YORK NY 10007	0.05 NE	57
17	RCRAGN	CON EDISON - BARCLAY STREET SUBSTAT NYR000012518/SGN	66 BARCLAY ST NEW YORK NY 10007	0.05 NE	16
68	ERNS	CON EDISON 518263/UNKNOWN	81 BARCLY ST MANHATTAN NY 10007	0.06 NE	51
124	UST	DISTRICT COUNCIL 37 AFSCME PBS2-063568/ACTIVE PBS FACILITY	125 BARCLAY STREET NEW YORK NY 10007	0.06 NE	92
149	UST	THE BANK OF NEW YORK PBS2-201669/ACTIVE PBS FACILITY	101 BARCLAY ST NEW YORK NY 10007	0.06 NE	110
160	LUST	90 WEST ST 9610083/CLOSED	90 WEST ST NEW YORK NY 10006	0.06 SW	99
133	UST	LASALLE PARTNERS MANGEMENT LTD. PBS2-200212/ACTIVE PBS FACILITY	90 WEST ST NEW YORK NY 10006	0.06 SW	99
30	RCRAGN	MENDIK REALTY - 100 CHURCH STREET NY0000878512/VGN	100 CHURCH ST - BASEMENT NEW YORK NY 10007	0.07 NE	27
10	RCRAGN	BATTERY PARK CC TOWER A NYD982534497/SGN	200 LIBERTY ST NEW YORK NY 10280	0.07 NW	10
22	RCRAGN	DOW JONES & CO INC NY0000127027/VGN	200 LIBERTY ST - FLOOR 9-17 NEW YORK NY 10280	0.07 NW	10
125	UST	DOW JONES & COMPANY INC PBS2-044555/ACTIVE PBS FACILITY	200 LIBERTY ST NEW YORK NY 10280	0.07 NW	10
53	RCRAGN	OLYMPIA & YORK PROPERTIES NYD173744400/LGN	200 LIBERTY ST NEW YORK NY 10280	0.07 NW	10
153	UST	WFC TOWER A CO., L.P. PBS2-601830/ACTIVE PBS FACILITY	200 LIBERTY AVENUE NEW YORK NY 10281	0.07 NW	10
19	RCRAGN	CON EDISON - DEY STREET SERVICE NYD981566862/LGN	2 DEY ST NEW YORK NY 10007	0.07 SE	17
155	UST	WFP ONE LIBERTY PLAZA CO., L.P. PBS2-601823/ACTIVE PBS FACILITY	165 BROADWAY NEW YORK NY 10006	0.07 SE	114
168	FLOODPLAINS	FEMA FLOOD PLAIN 1168/500 YEAR	NY	0.07 SW	123
35	RCRAGN	MORGAN GUARANTY TRUST CO NYD137968756/LGN	55 EXCHANGE PL NEW YORK NY 10007	0.08 NE	32

Environmental FirstSearch

Sites Summary Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

TOTAL: 185 **GEOCODED:** 184 **NON GEOCODED:** 1 **SELECTED:** 99

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
96	UST	160 BROADWAY PBS2-253863/ACTIVE PBS FACILITY	160 BROADWAY NEW YORK NY 10038	0.08 SE	73
97	UST	170 BROADWAY PBS2-338761/ACTIVE PBS FACILITY	170 BROADWAY NEW YORK NY 10038	0.08 SE	74
99	UST	195 PROPERTY ASSOCIATION PBS2-044490/UNREGULATED BY PBS	195 BROADWAY NEW YORK NY 10038	0.08 SE	76
89	UST	120 GREENWICH ST PBS2-282014/ACTIVE PBS FACILITY	120 GREENWICH ST NEW YORK NY 10006	0.08 SW	68
150	UST	THE BANKER S TRUST COMPANY PBS2-602072/UNREGULATED BY PBS	4 ALBANY STREET NEW YORK NY 10006	0.08 SW	111
80	ERNS	287859/UNKNOWN	180 BROADWAY - 12TH FLOOR UNIS NEW YORK NY 10038	0.09 SE	62
98	UST	176 BWAY OWNERS PBS2-207217/ACTIVE PBS FACILITY	176 BROADWAY NEW YORK NY 10038	0.09 SE	75
120	UST	COMMERCIAL OFFICE BUILDING PBS2-604466/ACTIVE PBS FACILITY	120 BOADWAY NEW YORK NY 10005	0.09 SE	88
137	UST	MINISTER,ELDERS & DEACONS PBS2-305693/ACTIVE PBS FACILITY	198 BROADWAY NEW YORK NY 10038	0.09 SE	102
106	UST	53 PARK PLACE PBS2-192392/ACTIVE PBS FACILITY	53 PARK PL NEW YORK NY 10007	0.10 NE	82
107	UST	75 PARK PLACE PBS2-601237/ACTIVE PBS FACILITY	75 PARK PLACE NEW YORK NY 10007	0.10 NE	18
20	RCRAGN	CONTRACT APPLICATIONS INC NYD982275869/SGN	75 PARK PL NEW YORK NY 10007	0.10 NE	18
40	RCRAGN	MTA NYCT - WORLD TRADE CENTER COMPL NYR000063792/LGN	PARK PL & CHURCH ST NEW YORK NY 10007	0.10 NE	37
51	RCRAGN	NYCTA - SPECIAL EQUIP LUBRICATION T NYD982739476/LGN	400 CHURCH ST & PARK PL NEW YORK NY 10007	0.10 NE	37
139	UST	OLYMPIA AND YORK PROPERTIES CBS2-000267/INACTIVE	4 WORLD FINANCIAL CENTER NEW YORK NY 10280	0.10 NW	104
4	RCRAGN	222 BROADWAY LLC NYD982537052/LGN	222 BROADWAY NEW YORK NY 10038	0.10 SE	4
101	UST	222 BROADWAY, LLC PBS2-452475/ACTIVE PBS FACILITY	222 BROADWAY NEW YORK NY 10038	0.10 SE	4
102	UST	225 BROADWAY PBS2-253162/ACTIVE PBS FACILITY	225 BROADWAY NEW YORK NY 10038	0.10 SE	78
48	RCRAGN	NYC DEPT OF PARKS & RECREATION NYR000077123/SGN	PARK ROW & BROADWAY CHAMBERS NEW YORK NY 10038	0.10 SE	44
50	RCRAGN	NYCTA - FULTON STREET STATION NY0000638122/SGN	BROADWAY & FULTON ST NEW YORK NY 10038	0.10 SE	46

Environmental FirstSearch

Sites Summary Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

TOTAL: 185 **GEOCODED:** 184 **NON GEOCODED:** 1 **SELECTED:** 99

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
5	RCRAGN	68 TRINITY PLACE MEZZANINE NYR000028688/SGN	68 TRINITY PL NEW YORK NY 10006	0.11 SW	5
85	UST	11 PARK PLACE PBS2-147737/ACTIVE PBS FACILITY	11 PARK PLACE NEW YORK NY 10007	0.12 NE	65
41	RCRAGN	N KRUGER INC NYD986875573/LGN	158 WESTSIDE HWY NEW YORK NY 10007	0.12 NE	38
92	UST	14 MAIDEN LANE BUILDING PBS2-100226/ACTIVE PBS FACILITY	14 MAIDEN LANE NEW YORK NY 10038	0.12 SE	70
28	RCRAGN	GATEWAY CLEANERS NYD981133572/SGN	325 SOUTHEND AVE NEW YORK NY 10280	0.12 SW	25
32	RCRAGN	MERRILL LYNCH WORLD FINANCIAL NYD987034279/LGN	250 VESEY ST NEW YORK NY 10280	0.13 NW	29
154	UST	WFC TOWER D COMPANY PBS2-601825/ACTIVE PBS FACILITY	250 VESEY STREET NEW YORK NY 10048	0.13 NW	29
62	RCRAGN	WORLD FINANCIAL PROPERTIES NYR000054809/SGN	250 VERSEY ST ENGINEER OFFICE NEW YORK NY 10281	0.13 NW	29
94	UST	15 PARK ROW PBS2-057444/ACTIVE PBS FACILITY	15 PARK ROW NEW YORK NY 10038	0.13 SE	72
86	UST	111 PKG. CORP. PBS2-601410/UNREGULATED BY PBS	111 WASHINGTON STREET NEW YORK NY 10013	0.13 SW	66
6	RCRAGN	75 WEST CONSTRUCTION CORP NYR000067413/SGN	110 WASHINGTON ST NEW YORK NY 10006	0.13 SW	6
112	UST	BANK OF NEW YORK PBS2-326437/ACTIVE PBS FACILITY	110 WASHINGTON ST NEW YORK NY 10015	0.13 SW	6
49	RCRAGN	NYCTA NYD986967917/VGN	WALL ST & BROADWAY NEW YORK NY 10005	0.13 SW	45
79	ERNS	492778/FIXED FACILITY	ANN ST, BETWEEN BROADWAY AND N NEW YORK NY 10038	0.14 SE	61
93	UST	14 WALL STREET PBS2-603810/ACTIVE PBS FACILITY	14 WALL STREET NEW YORK NY 10005	0.14 SE	71
1	CERCLIS	RADIUM LUMINOUS MATERIALS CO NYD987001443/N	55 LIBERTY STREET NEW YORK NY 10038	0.14 SE	1
141	UST	PARC PLACE PBS2-600056/ACTIVE PBS FACILITY	225 RECTOR PLACE NEW YORK NY 10280	0.14 SW	105
13	RCRAGN	CHASE MANHATTAN BANK NY0000280867/SGN	1 CHASE MANHATTAN PLZ NEW YORK NY 10005	0.15 SE	13
14	RCRAGN	CHASE MANHATTAN BANK NYR000068015/SGN	1 CHASE PLZ BASEMENT 2 ROOM 2 NEW YORK NY 10005	0.15 SE	13
70	ERNS	CON EDISON 593354/UNKNOWN	15 NASSAU ST NEW YORK NY 10005	0.15 SE	53

Environmental FirstSearch

Sites Summary Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

TOTAL: 185 **GEOCODED:** 184 **NON GEOCODED:** 1 **SELECTED:** 99

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
18	RCRAGN	CON EDISON - CHASE PLAZA NYD982272114/SGN	1 CHASE PL NEW YORK NY 10005	0.15 SE	13
134	UST	LIBERTY COURT CONDOMINIUM PBS2-348147/ACTIVE PBS FACILITY	200 RECTOR PLACE NEW YORK NY 10280	0.15 SW	100
38	RCRAGN	MTA NYCT - RECTOR STREET PUMP ROOM NYR000041764/SGN	RECTOR ST & TRINITY PL NEW YORK NY 10006	0.15 SW	35
128	UST	GREENWICH COURT PBS2-481157/ACTIVE PBS FACILITY	275 GREENWICH STREET NEW YORK NY 10007	0.16 NE	95
104	UST	31 PARK ROW PBS2-057517/ACTIVE PBS FACILITY	31 PARK ROW NEW YORK NY 10038	0.16 SE	80
37	RCRAGN	MTA NYCT - JOHN STREET PUMP ROOM NYR000041749/SGN	JOHN & NASSAU ST NEW YORK NY 10038	0.16 SE	34
44	RCRAGN	NEW YORK STOCK EXCHANGE NYR000043729/SGN	11 WALL ST NEW YORK NY 10005	0.16 SE	41
130	UST	HIGHLAND DEVELOPMENT LLC PBS2-604413/ACTIVE PBS FACILITY	71 BROADWAY NEW YORK NY 10006	0.16 SW	97
39	RCRAGN	MTA NYCT - RECTOR STREET STATION NYR000051516/SGN	RECTOR & GREENWICH ST NEW YORK NY 10006	0.16 SW	36
145	UST	RIVER ROSE PBS2-373079/ACTIVE PBS FACILITY	333 RECTOR PLACE NEW YORK NY 10280	0.16 SW	107
36	RCRAGN	MTA NYCT - CITY HALL STATION NYR000074880/LGN	BROADWAY & MURRAY ST NEW YORK NY 10007	0.17 NE	33
109	UST	87 NASSAU STREET PBS2-047031/ACTIVE PBS FACILITY	87 NASSAU STREET NEW YORK NY 10038	0.17 SE	84
144	UST	RESIDENTIAL APARTMENT BLD PBS2-259861/ACTIVE PBS FACILITY	350 ALBANY ST NEW YORK NY 10280	0.17 SW	106
159	LUST	75 WARREN ST 9513843/CLOSED	75 WARREN ST NEW YORK NY 10007	0.18 NE	116
29	RCRAGN	LEGISLATIVE TASK FORCE NY0000890459/SGN	250 BROADWAY - 20TH FLOOR NEW YORK NY 10007	0.18 NE	26
162	FLOODPLAINS	FEMA FLOOD PLAIN 1080/100 YEAR	NY	0.18 NW	117
81	ERNS	453149/UNKNOWN	25 PINE STREET NEW YORK NY 10023	0.18 SE	54
71	ERNS	CON EDISON 468665/FIXED FACILITY	25 PINE STREET NEW YORK NY 10023	0.18 SE	54
152	UST	WEST STREET EQUITIES GROUP PBS2-604264/UNREGULATED BY PBS	80 WASHINGTON STREET NEW YORK NY 10006	0.18 SW	113
108	UST	80 WARREN ST PBS2-161357/ACTIVE PBS FACILITY	80 WARREN ST NEW YORK NY 10007	0.19 NE	83

Environmental FirstSearch

Sites Summary Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

TOTAL: 185 **GEOCODED:** 184 **NON GEOCODED:** 1 **SELECTED:** 99

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
16	RCRAGN	CITY OF NEW YORK THE NYR000065094/SGN	253 BROADWAY 6TH FLOOR NEW YORK NY 10007	0.19 NE	15
72	ERNS	CON EDISON 584635/UNKNOWN	WARREN ST EAST OF CHURCH ST NEW YORK NY 10023	0.19 NE	55
73	ERNS	CON EDISON 592443/PLANT	WARREN ST EAST OF CHURCH ST NEW YORK NY 10007	0.19 NE	55
47	RCRAGN	NYC DEPT OF GENERAL SERVICE NYD987031234/SGN	253 BROADWAY - ROOM 1302 NEW YORK NY 10007	0.19 NE	15
25	RCRAGN	FEDERAL RESERVE BANK NYR000063875/SGN	33 LIBERTY ST NEW YORK NY 10038	0.19 SE	22
122	UST	COMMERCIAL PROPERTY PBS2-269905/ACTIVE PBS FACILITY	74-80 WASHINGTON ST NEW YORK NY 10006	0.19 SW	90
88	UST	116 NASSAU STREET PBS2-069531/ACTIVE PBS FACILITY	116 NASSAU STREET NEW YORK NY 10038	0.20 SE	21
24	RCRAGN	EQUITABLE BLUEPRINT & PHOTOPRINT IN NYD012002184/LGN	116 NASSAU ST NEW YORK NY 10038	0.20 SE	21
138	UST	MORGAN GUARANTY TRUST COMPANY PBS2-099902/ACTIVE PBS FACILITY	23 WALL STREET NEW YORK NY 10015	0.20 SE	103
42	RCRAGN	NATIONAL PARK SERVICE NY7141707003/LGN	26 WALL ST - FEDERAL HALL NM NEW YORK NY 10005	0.20 SE	39
103	UST	258 BROADWAY PBS2-510882/ACTIVE PBS FACILITY	258 BROADWAY NEW YORK NY 10007	0.21 NE	79
119	UST	CITY HALL TOWER CORP PBS2-146420/ACTIVE PBS FACILITY	258 BROADWAY NEW YORK NY 10007	0.21 NE	79
163	FLOODPLAINS	FEMA FLOOD PLAIN 1111/500 YEAR	NY	0.21 NE	118
151	UST	THE GERKEN BUILDING CORPORATION PBS2-603039/ACTIVE PBS FACILITY	90 WEST BROADWAY NEW YORK NY 10007	0.21 NE	112
3	RCRAGN	20 BROAD STREET CO INC NY0000878603/VGN	20 BROAD ST - BASEMENT NEW YORK NY 10005	0.21 SE	3
105	UST	38 PARK ROW RESIDENCE CORP PBS2-130524/ACTIVE PBS FACILITY	145 NASSAU ST NEW YORK NY 10038	0.21 SE	81
132	UST	J W REALTY CO PBS2-258261/ACTIVE PBS FACILITY	132 NASSAU ST NEW YORK NY 10038	0.21 SE	98
55	RCRAGN	PACE UNIVERSITY HASKINS LAB NYD986900868/VGN	41 PARK ROW NEW YORK NY 10038	0.21 SE	48
158	LUST	55-02 BROADWAY 8708195/CLOSED	55-02 BROADWAY NEW YORK NY 10006	0.21 SW	115
174	FLOODPLAINS	FEMA FLOOD PLAIN 1176/500 YEAR	NY	0.21 SW	129

Environmental FirstSearch

Sites Summary Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

TOTAL: 185 **GEOCODED:** 184 **NON GEOCODED:** 1 **SELECTED:** 99

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
135	UST	LIBERTY HOUSE PBS2-340332/ACTIVE PBS FACILITY	377 RECTOR PLACE NEW YORK NY 10280	0.21 SW	101
118	UST	CITY HALL TENANTS CORP PBS2-147095/ACTIVE PBS FACILITY	261 BROADWAY NEW YORK NY 10007	0.22 NE	87
129	UST	GREENWICH COURT PBS2-481165/ACTIVE PBS FACILITY	295 GREENWICH STREET NEW YORK NY 10007	0.22 NE	96
34	RCRAGN	MORGAN GUARANTY TRUST CO NYD981559867/LGN	15 BROAD ST NEW YORK NY 10005	0.22 SE	31
77	ERNS	494213/UNKNOWN	380 RICTOR PLACE NEW YORK NY 10280	0.22 SW	59
121	UST	COMMERCIAL PROP PBS2-258822/ACTIVE PBS FACILITY	47 WEST ST NEW YORK NY 10006	0.22 SW	89
136	UST	LIBERTY TERRACE PBS2-345504/ACTIVE PBS FACILITY	380 RECTOR PLACE NEW YORK NY 10280	0.22 SW	59
95	UST	150 NASSAU STREET PBS2-601403/ACTIVE PBS FACILITY	150 NASSAU STREET NEW YORK NY 10038	0.23 SE	49
74	ERNS	CON EDISON 507444/HIGHWAY RELATED	SPRUCE & NASSAU STREETS NEW YORK NY 10038	0.23 SE	56
76	ERNS	CON-EDISON 541982/UNKNOWN	MAIDEN LANE AND WILLIAMS STREE NEW YORK NY 10038	0.23 SE	58
127	UST	FULTON/MAX INTERNATIONAL (HOLDINGS) PBS2-069566/ACTIVE PBS FACILITY	106 FULTON STREET NEW YORK NY 10038	0.23 SE	94
57	RCRAGN	SEA-PATH MEDICAL LABORATORY NYD987008489/LGN	150 NASSAU ST NEW YORK NY 10038	0.23 SE	49
114	UST	BATTERY PARKING GARAGE PBS2-400653/UNREGULATED BY PBS	70 GREENWICH STREET NEW YORK NY 10006	0.23 SW	86
7	RCRAGN	ANACOMP INC NYR000013078/LGN	157 CHAMBERS ST - 2ND FLOOR NEW YORK NY 10007	0.24 NE	7
117	UST	BOROUGH OF MANHATTAN COMMUNITY PBS2-342149/ACTIVE PBS FACILITY	199 CHAMBERS STREET NEW YORK NY 10007	0.24 NE	11
11	RCRAGN	BOROUGH OF MANHATTAN COMMUNITY COLL NYD981180664/VGN	199 CHAMBERS ST NEW YORK NY 10007	0.24 NE	11
123	UST	COSMOPOLITAN HOTEL PBS2-206539/ACTIVE PBS FACILITY	125 CHAMBERS ST NEW YORK NY 10007	0.24 NE	91
131	UST	HUDSON-CHAMBERS CO PBS2-063975/ACTIVE PBS FACILITY	157 CHAMBERS ST NEW YORK NY 10007	0.24 NE	7
61	RCRAGN	WINTOR PRESS DBA MINUTEMAN PRESS NY0000933218/SGN	157 CHAMBERS ST NEW YORK NY 10007	0.24 NE	7
84	UST	100 WILLIAM STREET PBS2-604246/ACTIVE PBS FACILITY	100 WILLIAM STREET NEW YORK NY 10038	0.24 SE	64

Environmental FirstSearch

Sites Summary Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

TOTAL: 185 **GEOCODED:** 184 **NON GEOCODED:** 1 **SELECTED:** 99

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
8	RCRAGN	ATLANTIC BUILDING NYD986903854/LGN	45 WALL ST NEW YORK NY 10005	0.24 SE	8
12	RCRAGN	BRAZOS ASSET MGMT INC NYD987032117/LGN	25 BROAD ST NEW YORK NY 10004	0.24 SE	12
69	ERNS	CON EDISON 488051/PLANT	51 EXCHANGE PLACE VAULT #6103 NEW YORK NY 10005	0.24 SE	52
171	FLOODPLAINS	FEMA FLOOD PLAIN 1174/500 YEAR	NY	0.24 SE	126
31	RCRAGN	MENDIK REALTY - 110 WILLIAM STREET NY0000878546/VGN	110 WILLIAM ST - BASEMENT NEW YORK NY 10038	0.24 SE	28
157	LUST	270 BROADWAY 9912451/CLOSED	270 BROADWAY NEW YORK NY 10007	0.25 NE	85
111	UST	ARTHUR LEVITT SOB PBS2-401536/ACTIVE PBS FACILITY	270 BROADWAY NEW YORK NY 10007	0.25 NE	85
46	RCRAGN	NORITSU AMERICA CORP NY0000970558/SGN	30 BROAD ST - INSTALLATION IN NEW YORK NY 10005	0.25 SE	43
54	RCRAGN	PACE UNIVERSITY NYD064961022/SGN	1 PACE PLZ NEW YORK NY 10038	0.25 SE	47
148	UST	SHANGHAI COMMERCIAL BANK BLDG PBS2-209635/ACTIVE PBS FACILITY	135 WILLIAM STREET NEW YORK NY 10038	0.25 SE	109
177	FLOODPLAINS	FEMA FLOOD PLAIN 1181/500 YEAR	NY	0.26 SE	132
184	HOSP	BEEKMAN HOSPITAL 6724	NY	0.29 SE	139
175	FLOODPLAINS	FEMA FLOOD PLAIN 1177/500 YEAR	NY	0.30 SE	130
173	FLOODPLAINS	FEMA FLOOD PLAIN 1175/500 YEAR	NY	0.31 SE	128
181	FLOODPLAINS	FEMA FLOOD PLAIN 1188/500 YEAR	NY	0.32 SE	136
180	FLOODPLAINS	FEMA FLOOD PLAIN 1187/500 YEAR	NY	0.34 SE	135
172	FLOODPLAINS	FEMA FLOOD PLAIN 1173/500 YEAR	NY	0.34 SE	127
178	FLOODPLAINS	FEMA FLOOD PLAIN 1182/500 YEAR	NY	0.34 SE	133
176	FLOODPLAINS	FEMA FLOOD PLAIN 1178/100 YEAR	NY	0.35 SW	131
179	FLOODPLAINS	FEMA FLOOD PLAIN 1184/500 YEAR	NY	0.36 SE	134

Environmental FirstSearch
Sites Summary Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

TOTAL: 185 **GEOCODED:** 184 **NON GEOCODED:** 1 **SELECTED:** 99

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
182	FLOODPLAINS	FEMA FLOOD PLAIN 1190/500 YEAR	NY	0.36 SW	137
170	FLOODPLAINS	FEMA FLOOD PLAIN 1171/500 YEAR	NY	0.38 SE	125
183	FLOODPLAINS	FEMA FLOOD PLAIN 1192/500 YEAR	NY	0.39 SW	138
169	FLOODPLAINS	FEMA FLOOD PLAIN 1169/500 YEAR	NY	0.46 SE	124

Environmental FirstSearch
Sites Summary Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

TOTAL: 185 **GEOCODED:** 184 **NON GEOCODED:** 1 **SELECTED:** 99

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
185	RELEASES	394208/UNKNOWN (NRC)	HUDSON AVE//FOOT OF GOLD STREE NEW YORK CITY NY	NON GC	

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

EMERGENCY RESPONSE NOTIFICATION SITE

SEARCH ID: 78 **DIST/DIR:** 0.00 -- **MAP ID:** 60

NAME: ADDRESS: WORLD TRADE CENTER NEW YORK NY 10007 CONTACT:	REV: ID1: 506484 ID2: STATUS: UNKNOWN PHONE:
--	---

CERCLIS (Y/N):

MAT: UNKNOWN OIL **QUANT:** 0 UNKNOWN

LOCATION: WORLD TRADE CENTER
CITY: **REPORTED:** 09/06/96

SOURCE: UNKNOWN **MEDIUM:** WATER
UNKNOWN / UNKNOWN SHEEN SIGHTING, SHEEN SIZE: 200 YDS X 400 YDS RAINBOW IN COL
CAUSE: UNKNOWN
OR

ACT: NONE
BY:

EMERGENCY RESPONSE NOTIFICATION SITE

SEARCH ID: 83 **DIST/DIR:** 0.00 -- **MAP ID:** 14

NAME: ADDRESS: 72 S 1 WORLD TRADE CENTER MANHATTAN NY 10047 New York CONTACT:	REV: ID1: 268421 ID2: STATUS: UNKNOWN PHONE:
--	---

CERCLIS (Y/N):

MAT: UNKNOWN MATERIAL **QUANT:** 0 UNKNOWN

LOCATION: 72 S 1 WORLD TRADE CENTER
CITY: **REPORTED:** 06/03/92

SOURCE: UNKNOWN **MEDIUM:** WATER
UNKNOWN / UNKNOWN SHEEN SIGHTING SHEEN SIZE: 1000 X 400 BLACK AND RED SH
CAUSE: UNKNOWN
EEN

ACT: UNKNOWN
BY:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 91 **DIST/DIR:** 0.00 -- **MAP ID:** 69

NAME: 134 WILSHIRE HOUSE
ADDRESS: 134 WEST 58TH ST
NEW YORK NY 10019

REV: 07/01/00
ID1: PBS2-245984
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 581-8157

CONTACT: LARRY SHORT

PETROLEUM BULK STORAGE FACILITY INFORMATION

TYPE OF SITE: APARTMENT BUILDING

TOTAL ACTIVE TANKS ON SITE: 1

TOTAL FACILITY CAPACITY: 5000 GALLONS

OLD PBS NUMBER:

CBS NUMBER:

SPDES NUMBER:

ADDITIONAL ADDRESS INFO: 134 WEST 58TH ST

TYPE OF OWNER: CORPORATE/COMMERCIAL

OWNER SUB TYPE:

OWNER ADDRESS: 745 FIFTH AVENUE
NEW YORK NY 10151

PHONE: (212) 873-9200

EMERGENCY CONTACT: LARRY SHORT
PHONE: (212) 851-8157

MAILING NAME: MBH REALTY LTD. D/B/A/ HELLER REALTY
ADDRESS: 745 FIFTH AVENUE
NEW YORK NY 10151
ATTENTION: BMH REALTY LTD.
PHONE: (212) 873-9200

CERTIFICATE DATE: 9/15/98 **EXP. DATE:** 9/15/03
RENEWAL DATE: 6/11/97

TANK INFORMATION

TANK NUMBER: 001 **TANK STATUS:** IN SERVICE
INSTALLED: 7/1/86 **CLOSED:**
TANK CAPACITY: 5000 GALLONS
PRODUCT: # 5 OR 6 FUEL OIL

TANK TYPE: STEEL/CARBON STEEL
TANK LOCATION: ABOVEGROUND

INTERNAL PROTECTION:

EXTERNAL PROTECTION:

PIPE TYPE: STEEL/IRON

PIPE LOCATION:

INTERNAL PROTECTION:

EXTERNAL PROTECTION: WRAPPED (PIPING)

SECONDARY CONTAINMENT: VAULT

LEAK DETECTION: NONE

OVERFILL PROTECTION: PRODUCT LEVEL GAUGE

DISPENSER: SUCTION

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 91 **DIST/DIR:** 0.00 -- **MAP ID:** 69

NAME: 134 WILSHIRE HOUSE
ADDRESS: 134 WEST 58TH ST
NEW YORK NY 10019

REV: 07/01/00
ID1: PBS2-245984
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 581-8157

CONTACT: LARRY SHORT

DATE TESTED:
NEXT TEST:
TEST METHOD:

TANK NUMBER: 002 **TANK STATUS:** CLOSED PRIOR TO 04/91 (IT IS EITHER IN
PLACE OR REMOVED)

INSTALLED: **CLOSED:**

TANK CAPACITY: 5000 GALLONS
PRODUCT: # 5 OR 6 FUEL OIL

TANK TYPE: STEEL/CARBON STEEL
TANK LOCATION: UNDERGROUND
INTERNAL PROTECTION: EPOXY LINER

EXTERNAL PROTECTION:
PIPE TYPE:

PIPE LOCATION:
INTERNAL PROTECTION:

EXTERNAL PROTECTION:
SECONDARY CONTAINMENT:

LEAK DETECTION: VAULT

OVERFILL PROTECTION: NONE

DISPENSER: GRAVITY

DATE TESTED:
NEXT TEST:
TEST METHOD:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 113 **DIST/DIR:** 0.00 -- **MAP ID:** 20

NAME: BARGE JOAN K ADDRESS: TWO WORLD TRADE CENTER NEW YORK NY 10048 NEW YORK CONTACT: DAVID P. DINGLEY	REV: 07-01-98 ID1: MOS0-0363 ID2: STATUS: INACTIVE PHONE: (212) 720-4900
--	---

MAJOR OIL STORAGE FACILITY INFORMATION

SITE TYPE: VESSEL / BARGE		
TOTAL TANKS:	TOTAL CAPACITY: 69300	DAILY THROUGHPUT: 0
CBS No.:	SPDES No.:	
ADDITIONAL ADDRESS INFO:	SUTTE 9662	

OWNER TYPE: CORPORATE / COMMERCIAL
OWNER NAME: MANHATTAN OIL TRANSPORTATION OF N.Y. INC.
ADDRESS: TWO WORLD TRADE CENTER SUTTE 9662
NEW YORK, NY 10048-
PHONE: (212) 720-4900

EMERGENCY NAME: DAVID P. DINGLEY **PHONE:** (212) 720-4900

MAILING NAME: MANHATTAN OIL TRANSPORTATION OF N.Y. INC.
ADDRESS: TWO WORLD TRADE CENTER SUTTE 9662
NEW YORK, NY 10048-
ATTN: DAVID P. DINGLEY **PHONE:** (212) 720-4900

LEGAL CONTACT:
ADDRESS:

PRODUCT TRANSFER OPERATIONS:		
LICENSE STATUS: PENDING	APPLICATION RECEIVED:	04/01/81
LICENSE ISSUED: 04/01/81	LICENSE EXPIRES:	03/31/82

TANK DETAIL(s)

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 116

DIST/DIR: 0.00 --

MAP ID: 20

NAME: BELL ATLANTIC
ADDRESS: 2 WORLD TRADE CENTER
NEW YORK NY 10048

REV: 07/01/00
ID1: PBS2-344737
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (888) 696-3973

CONTACT: BELL ATLANTIC

PETROLEUM BULK STORAGE FACILITY INFORMATION

TYPE OF SITE: UTILITY

TOTAL ACTIVE TANKS ON SITE: 5

TOTAL FACILITY CAPACITY: 10925 GALLONS

OLD PBS NUMBER:

CBS NUMBER:

SPDES NUMBER:

ADDITIONAL ADDRESS INFO: 2 WORLD TRADE CENTER

TYPE OF OWNER: CORPORATE/COMMERCIAL
OWNER SUB TYPE: NEW YORK TELEPHONE
OWNER ADDRESS: 221 EAST 37TH STREET, 4TH FLOOR
NEW YORK NY 10016
PHONE: (800) 386-9639

EMERGENCY CONTACT: BELL ATLANTIC
PHONE: (800) 386-9639

MAILING NAME: BELL ATLANTIC
ADDRESS: 221 EAST 37TH STREET, 4TH FLOOR
NEW YORK NY 10016
ATTENTION: KATHLEEN TOBIN
PHONE: (212) 338-7881

CERTIFICATE DATE: 7/30/99 **EXP. DATE:** 8/23/03
RENEWAL DATE:

TANK INFORMATION

TANK NUMBER: 001 **TANK STATUS:** IN SERVICE
INSTALLED: **CLOSED:**
TANK CAPACITY: 10000 GALLONS
PRODUCT: DIESEL

TANK TYPE: STEEL/CARBON STEEL
TANK LOCATION: ABOVEGROUND
INTERNAL PROTECTION:
EXTERNAL PROTECTION: PAINTED/ASPHALT COATING
PIPE TYPE: STEEL/IRON
PIPE LOCATION: ABOVEGROUND/UNDERGROUND COMBINATION
INTERNAL PROTECTION:
EXTERNAL PROTECTION:
SECONDARY CONTAINMENT: 1
LEAK DETECTION: IN-TANK SYSTEM
OVERFILL PROTECTION: HIGH LEVEL ALARM
DISPENSER: SUCTION

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 116 **DIST/DIR:** 0.00 -- **MAP ID:** 20

NAME: BELL ATLANTIC
ADDRESS: 2 WORLD TRADE CENTER
NEW YORK NY 10048

REV: 07/01/00
ID1: PBS2-344737
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (888) 696-3973

CONTACT: BELL ATLANTIC

DATE TESTED:
NEXT TEST:
TEST METHOD:

TANK NUMBER:	002	TANK STATUS:	IN SERVICE
INSTALLED:		CLOSED:	
TANK CAPACITY:	275 GALLONS		
PRODUCT:	DIESEL		

TANK TYPE: STEEL/CARBON STEEL
TANK LOCATION: ABOVEGROUND

INTERNAL PROTECTION:
EXTERNAL PROTECTION:
PIPE TYPE:

PIPE LOCATION:

INTERNAL PROTECTION:
EXTERNAL PROTECTION:

SECONDARY CONTAINMENT: 7

LEAK DETECTION:
OVERFILL PROTECTION: AUTOMATIC SHUTOFF

DISPENSER:
DATE TESTED:
NEXT TEST:
TEST METHOD:

TANK NUMBER:	003	TANK STATUS:	IN SERVICE
INSTALLED:		CLOSED:	
TANK CAPACITY:	275 GALLONS		
PRODUCT:	DIESEL		

TANK TYPE: STEEL/CARBON STEEL
TANK LOCATION: ABOVEGROUND

INTERNAL PROTECTION:
EXTERNAL PROTECTION:
PIPE TYPE:

PIPE LOCATION:

INTERNAL PROTECTION:
EXTERNAL PROTECTION:

SECONDARY CONTAINMENT: 7

LEAK DETECTION:
OVERFILL PROTECTION: AUTOMATIC SHUTOFF

DISPENSER:
DATE TESTED:
NEXT TEST:
TEST METHOD:

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 116

DIST/DIR: 0.00 —

MAP ID: 20

NAME: BELL ATLANTIC
ADDRESS: 2 WORLD TRADE CENTER
NEW YORK NY 10048

REV: 07/01/00
ID1: PBS2-344737
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (888) 696-3973

CONTACT: BELL ATLANTIC

TANK NUMBER: 004 **TANK STATUS:** IN SERVICE
INSTALLED: **CLOSED:**
TANK CAPACITY: 275 GALLONS
PRODUCT: DIESEL

TANK TYPE: STEEL/CARBON STEEL
TANK LOCATION: ABOVEGROUND

INTERNAL PROTECTION:
EXTERNAL PROTECTION:

PIPE TYPE:
PIPE LOCATION:

INTERNAL PROTECTION:
EXTERNAL PROTECTION:
SECONDARY CONTAINMENT: 7

LEAK DETECTION:
OVERFILL PROTECTION: AUTOMATIC SHUTOFF
DISPENSER:

DATE TESTED:
NEXT TEST:
TEST METHOD:

TANK NUMBER: 005 **TANK STATUS:** IN SERVICE
INSTALLED: **CLOSED:**
TANK CAPACITY: 100 GALLONS
PRODUCT: DIESEL

TANK TYPE: STEEL/CARBON STEEL
TANK LOCATION: ABOVEGROUND

INTERNAL PROTECTION:
EXTERNAL PROTECTION:

PIPE TYPE:
PIPE LOCATION:

INTERNAL PROTECTION:
EXTERNAL PROTECTION:
SECONDARY CONTAINMENT: 7

LEAK DETECTION:
OVERFILL PROTECTION: AUTOMATIC SHUTOFF
DISPENSER:

DATE TESTED:
NEXT TEST:
TEST METHOD:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

RCRA GENERATOR SITE

SEARCH ID: 15 **DIST/DIR:** 0.00 -- **MAP ID:** 14

NAME: CHEMICAL BANK
ADDRESS: 1 WORLD TRADE CENTER 83RD FL
NEW YORK NY 10048
NEW YORK
CONTACT: MEROLA JOE

REV:
ID1: NYD986895084
ID2:
STATUS: LGN
PHONE: 2128203639

ADDRESS: NOT REQUIRED
NOT REQUIRED WY 99999

NOTIFIED:
PART A:

ACTIVITIES: LG: GENERATES MORE THAN 1000 KG/MONTH OF HAZARDOUS WASTE

CM+E LIST:
RAATS:

VIOL DATE:
ACTION DATE:

AGENCY:
DOCKET:

UPDATED: 11-10-98
UPDATED:

VIOL:
NUM:
ENF:
DATE:

ASSESS:

SETTLE:

RCRA GENERATOR SITE

SEARCH ID: 23 **DIST/DIR:** 0.00 -- **MAP ID:** 20

NAME: EBASCO SERVICES INC
ADDRESS: TWO WORLD TRADE CENTER - B1 &
NEW YORK NY 10048

REV:
ID1: NYD986997930
ID2:
STATUS: SGN
PHONE: 2128393556

CONTACT: SLOWEY JAMES J

ADDRESS: NOT REQUIRED
NOT REQUIRED NY 99999

NOTIFIED:
PART A:

ACTIVITIES: SG: GENERATES 100-1000 KG/MONTH OF HAZARDOUS WASTE
TR: TRANSPORTER

CM+E LIST:
RAATS:

VIOL DATE:
ACTION DATE:

AGENCY:
DOCKET:

UPDATED: 11-10-98
UPDATED:

VIOL:
NUM:
ENF:
DATE:

ASSESS:

SETTLE:

***Environmental FirstSearch
Site Detail Report***

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

RCRA GENERATOR SITE

SEARCH ID: 23	DIST/DIR: 0.00 --	MAP ID: 20
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NAME: EBASCO SERVICES INC
ADDRESS: TWO WORLD TRADE CENTER - B1 &
NEW YORK NY 10048

REV:
ID1: NYD986997930
ID2:
STATUS: SGN
PHONE: 2128393556

CONTACT: SLOWEY JAMES J

ADDRESS: NOT REQUIRED
NOT REQUIRED NY 99999

NOTIFIED:
PART A:

ACTIVITIES: SG: GENERATES 100-1000 KG/MONTH OF HAZARDOUS WASTE
TR: TRANSPORTER

CM+E LIST:
RAATS:

VIOL DATE:
ACTION DATE:

AGENCY:
DOCKET:

UPDATED: 11-10-98
UPDATED:

VIOL:
NUM:
ENF:
DATE:

ASSESS:

SETTLE:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

FLOODPLAINS

SEARCH ID: 166

DIST/DIR: 0.00 --

MAP ID: 121

NAME: FEMA FLOOD PLAIN
ADDRESS:

REV:
ID1: 1163
ID2: 1190
STATUS: 500 YEAR
PHONE:

CONTACT:

AREA: 5.33053e-007
PERIMETER: 0.0030436
FIPS: 36061
COMMUNITY: 0497
FIRM PANEL: 3604970054B
QUAD: 40074-F1
FLOODWAY:
COBRA: COBRA_OUT
SFHA: OUT
SYMBOL: 11
PANEL TYPE: CBPP
STATE FIPS: 36
COUNTY FIPS: 061
PCOMM: 0497
PANEL: 0054B
QUAD UNIT: F1

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

FLOODPLAINS

SEARCH ID: 164

DIST/DIR: 0.00 --

MAP ID: 119

NAME: FEMA FLOOD PLAIN
ADDRESS:

REV:
ID1: 1155
ID2: 1159
STATUS: 100 YEAR
PHONE:

CONTACT:

AREA: 0.000100846
PERIMETER: 0.121074
FIPS: 36061
COMMUNITY: 0497
FIRM PANEL: 3604970054B
QUAD: 40074-F1
FLOODWAY:
COBRA: COBRA_OUT
SFHA: IN
SYMBOL: 4
PANEL TYPE: CBPP
STATE FIPS: 36
COUNTY FIPS: 061
PCOMM: 0497
PANEL: 0054B
QUAD UNIT: F1

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

RCRA GENERATOR SITE

SEARCH ID: 27 **DIST/DIR:** 0.00 -- **MAP ID:** 24

NAME: FUJI PHOTO FILM USA INC
ADDRESS: 3 WORLD TRADE CTR - HH ROOM
NEW YORK NY 10007
NEW YORK
CONTACT: FUJI PHOTO FILM USA INC

REV:
ID1: NYR000039487
ID2:
STATUS: SGN
PHONE: 9147898100

ADDRESS: 555 TAXTER RD
ELMSFORD NY 10523

NOTIFIED:
PART A:

ACTIVITIES: SG: GENERATES 100-1000 KG/MONTH OF HAZARDOUS WASTE

CM+E LIST:
RAATS:

VIOL DATE:
ACTION DATE:

AGENCY:
DOCKET:

UPDATED: 11-10-98
UPDATED:

VIOL:
NUM:
ENF:
DATE:

ASSESS:

SETTLE:

RCRA GENERATOR SITE

SEARCH ID: 43 **DIST/DIR:** 0.00 -- **MAP ID:** 40

NAME: NEDLLOYD INC
ADDRESS: 5 WORLD TRADE CENTER STE 617
NEW YORK NY 10048
NEW YORK
CONTACT: SARENSEN MALVIN

REV:
ID1: NYD045441615
ID2:
STATUS: LGN
PHONE: 2123239280

ADDRESS: NOT REQUIRED
NOT REQUIRED WY 99999

NOTIFIED:
PART A:

ACTIVITIES: LG: GENERATES MORE THAN 1000 KG/MONTH OF HAZARDOUS WASTE
TR: TRANSPORTER

CM+E LIST:
RAATS:

VIOL DATE:
ACTION DATE:

AGENCY:
DOCKET:

UPDATED: 11-10-98
UPDATED:

VIOL:
NUM:
ENF:
DATE:

ASSESS:

SETTLE:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

RCRA GENERATOR SITE							
SEARCH ID: 52	DIST/DIR: 0.00 --	MAP ID: 20					
<table style="width: 100%; border: none;"><tr><td style="width: 50%; vertical-align: top;">NAME: NYNEX MATERIEL ENTERPRISES CO ADDRESS: 2 WORLD TRADE CENTER NEW YORK NY 10048 NEW YORK CONTACT: NEW YORK TELEPHONE CO</td><td style="width: 50%; vertical-align: top;">REV: ID1: NYD986896462 ID2: STATUS: SGN PHONE: 2125551212</td></tr></table>				NAME: NYNEX MATERIEL ENTERPRISES CO ADDRESS: 2 WORLD TRADE CENTER NEW YORK NY 10048 NEW YORK CONTACT: NEW YORK TELEPHONE CO	REV: ID1: NYD986896462 ID2: STATUS: SGN PHONE: 2125551212		
NAME: NYNEX MATERIEL ENTERPRISES CO ADDRESS: 2 WORLD TRADE CENTER NEW YORK NY 10048 NEW YORK CONTACT: NEW YORK TELEPHONE CO	REV: ID1: NYD986896462 ID2: STATUS: SGN PHONE: 2125551212						
<table style="width: 100%; border: none;"><tr><td style="width: 50%; vertical-align: top;">ADDRESS: NOT REQUIRED NOT REQUIRED WY 99999</td><td style="width: 50%; vertical-align: top;">NOTIFIED: PART A:</td></tr></table>				ADDRESS: NOT REQUIRED NOT REQUIRED WY 99999	NOTIFIED: PART A:		
ADDRESS: NOT REQUIRED NOT REQUIRED WY 99999	NOTIFIED: PART A:						
ACTIVITIES: SG: GENERATES 100-1000 KG/MONTH OF HAZARDOUS WASTE							
<table style="width: 100%; border: none;"><tr><td style="width: 25%; vertical-align: top;">CM+E LIST: RAATS:</td><td style="width: 25%; vertical-align: top;">VIOL DATE: ACTION DATE:</td><td style="width: 25%; vertical-align: top;">AGENCY: DOCKET:</td><td style="width: 25%; vertical-align: top;">UPDATED: 11-10-98 UPDATED:</td></tr></table>				CM+E LIST: RAATS:	VIOL DATE: ACTION DATE:	AGENCY: DOCKET:	UPDATED: 11-10-98 UPDATED:
CM+E LIST: RAATS:	VIOL DATE: ACTION DATE:	AGENCY: DOCKET:	UPDATED: 11-10-98 UPDATED:				
<table style="width: 100%; border: none;"><tr><td style="width: 25%; vertical-align: top;">VIOL: NUM: ENF: DATE:</td><td style="width: 25%; vertical-align: top;">ASSESS:</td><td style="width: 25%; vertical-align: top;">SETTLE:</td><td></td></tr></table>				VIOL: NUM: ENF: DATE:	ASSESS:	SETTLE:	
VIOL: NUM: ENF: DATE:	ASSESS:	SETTLE:					

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 140 **DIST/DIR:** 0.00 -- **MAP ID:** 14

NAME: ONE WORLD TRADE CENTER ADDRESS: 1 WORLD TRADE CENTER NEW YORK NY 10048 CONTACT: JEFFREY INDUDDI	REV: 07/01/00 ID1: PBS2-602234 ID2: STATUS: ACTIVE PBS FACILITY PHONE: (212) 390-2219
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PETROLEUM BULK STORAGE FACILITY INFORMATION

TYPE OF SITE: OTHER
TOTAL ACTIVE TANKS ON SITE: 2
TOTAL FACILITY CAPACITY: 5000 GALLONS
OLD PBS NUMBER: **CBS NUMBER:** **SPDES NUMBER:**
ADDITIONAL ADDRESS INFO:

TYPE OF OWNER: CORPORATE/COMMERCIAL
OWNER SUB TYPE:
OWNER ADDRESS: ONE WORLD TRADE CENTER
NEW YORK NY 10048
PHONE: (212) 310-9500

EMERGENCY CONTACT: JEFFREY INDUDDI
PHONE: (212) 980-2343

MAILING NAME: INSTINET CORPORATION
ADDRESS: 530 FIFTH AVENUE
NEW YORK NY 10036
ATTENTION: NUNZIO DIDONNA
PHONE: (212) 310-4257

CERTIFICATE DATE: 6/21/00 **EXP. DATE:** 6/12/05
RENEWAL DATE: 3/1/00

TANK INFORMATION

TANK NUMBER: 001 INSTALLED: 8/1/93 TANK CAPACITY: 2500 GALLONS PRODUCT: # 1, 2, OR 4 FUEL OIL	TANK STATUS: IN SERVICE CLOSED:
--	--

TANK TYPE: STEEL/CARBON STEEL
TANK LOCATION: ABOVEGROUND
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: PAINTED/ASPHALT COATING
PIPE TYPE: STEEL/IRON
PIPE LOCATION: ABOVE GROUND
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: NONE
SECONDARY CONTAINMENT: 17
LEAK DETECTION: 09
OVERFILL PROTECTION: 25
DISPENSER: SUCTION

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 140

DIST/DIR: 0.00 --

MAP ID: 14

NAME: ONE WORLD TRADE CENTER
ADDRESS: 1 WORLD TRADE CENTER
NEW YORK NY 10048

REV: 07/01/00
ID1: PBS2-602234
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 390-2219

CONTACT: JEFFREY INDUDDI

DATE TESTED:
NEXT TEST:
TEST METHOD:

TANK NUMBER:	002	TANK STATUS:	IN SERVICE
INSTALLED:	8/1/93	CLOSED:	
TANK CAPACITY:	2500 GALLONS		
PRODUCT:	# 1, 2, OR 4 FUEL OIL		

TANK TYPE:	STEEL/CARBON STEEL
TANK LOCATION:	ABOVEGROUND
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	PAINTED/ASPHALT COATING
PIPE TYPE:	STEEL/IRON
PIPE LOCATION:	ABOVE GROUND
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	NONE
SECONDARY CONTAINMENT:	17
LEAK DETECTION:	09
OVERFILL PROTECTION:	25
DISPENSER:	SUCTION
DATE TESTED:	
NEXT TEST:	
TEST METHOD:	

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 142 **DIST/DIR:** 0.00 -- **MAP ID:** 14

NAME: PORT AUTHORITY OF NEW YORK / N. JERSEY	REV: 07/01/00
ADDRESS: 1 WORLD TRADE CENTER 88TH FLOOR SOUTH NEW YORK NY 10048	ID1: PBS2-293563
	ID2:
	STATUS: ACTIVE PBS FACILITY
CONTACT: JOHN CASTALDO	PHONE: (212) 435-8518

PETROLEUM BULK STORAGE FACILITY INFORMATION

TYPE OF SITE:	OTHER		
TOTAL ACTIVE TANKS ON SITE:	6		
TOTAL FACILITY CAPACITY:	16905 GALLONS		
OLD PBS NUMBER:		CBS NUMBER:	SPDES NUMBER:
ADDITIONAL ADDRESS INFO:	1 WORLD TRADE CENTER 88TH FLOOR SOUTH		
TYPE OF OWNER:	STATE GOVERNMENT		
OWNER SUB TYPE:	OTHER		
OWNER ADDRESS:	ONE WORLD TRADE CENTER NEW YORK NY 10048		
PHONE:	(212) 435-4155		
EMERGENCY CONTACT:	WT OPERATIONS		
PHONE:	(212) 435-2728		

MAILING NAME:	PORT AUTHORITY OF NEW YORK AND NEW JERSEY
ADDRESS:	TWO WORLD TRADE CENTER NEW YORK NY 10048
ATTENTION:	JOHN CATALDO/MGT.PLT/STR.
PHONE:	(212) 435-8518

CERTIFICATE DATE:	1/16/98	EXP. DATE:	7/14/02
RENEWAL DATE:	6/16/97		

TANK INFORMATION

TANK NUMBER:	001	TANK STATUS:	IN SERVICE
INSTALLED:		CLOSED:	
TANK CAPACITY:	10000 GALLONS		
PRODUCT:	# 1, 2, OR 4 FUEL OIL		
TANK TYPE:	STAINLESS STEEL ALLOY		
TANK LOCATION:	ABOVEGROUND ON SADDLES, LEGS, STILTS, RACK, OR CRADLE		
INTERNAL PROTECTION:	NONE		
EXTERNAL PROTECTION:	NONE		
PIPE TYPE:	STEEL/IRON		
PIPE LOCATION:	ABOVE GROUND		
INTERNAL PROTECTION:	NONE		
EXTERNAL PROTECTION:	NONE		
SECONDARY CONTAINMENT:	CONCRETE DIKE		
LEAK DETECTION:	GROUNDWATER WELL		
OVERFILL PROTECTION:	PRODUCT LEVEL GAUGE		
DISPENSER:	GRAVITY		

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 142 **DIST/DIR:** 0.00 -- **MAP ID:** 14

NAME: PORT AUTHORITY OF NEW YORK / N. JERSEY
ADDRESS: 1 WORLD TRADE CENTER 88TH FLOOR SOUTH
NEW YORK NY 10048

REV: 07/01/00
ID1: PBS2-293563
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 435-8518

CONTACT: JOHN CASTALDO

DATE TESTED:
NEXT TEST:
TEST METHOD:

TANK NUMBER:	002	TANK STATUS:	IN SERVICE
INSTALLED:	3/1/84	CLOSED:	
TANK CAPACITY:	5000 GALLONS		
PRODUCT:	# 1, 2, OR 4 FUEL OIL		

TANK TYPE:	STAINLESS STEEL ALLOY
TANK LOCATION:	ABOVEGROUND ON SADDLES, LEGS, STILTS, RACK, OR CRADLE
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	NONE
PIPE TYPE:	STEEL/IRON
PIPE LOCATION:	ABOVE GROUND
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	NONE
SECONDARY CONTAINMENT:	08
LEAK DETECTION:	03
OVERFILL PROTECTION:	PRODUCT LEVEL GAUGE
DISPENSER:	GRAVITY

DATE TESTED:
NEXT TEST:
TEST METHOD:

TANK NUMBER:	003	TANK STATUS:	IN SERVICE
INSTALLED:	5/1/70	CLOSED:	
TANK CAPACITY:	275 GALLONS		
PRODUCT:	# 1, 2, OR 4 FUEL OIL		

TANK TYPE:	STAINLESS STEEL ALLOY
TANK LOCATION:	ABOVEGROUND ON SADDLES, LEGS, STILTS, RACK, OR CRADLE
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	NONE
PIPE TYPE:	STEEL/IRON
PIPE LOCATION:	ABOVE GROUND
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	NONE
SECONDARY CONTAINMENT:	00
LEAK DETECTION:	IN-TANK SYSTEM
OVERFILL PROTECTION:	CATCH BASIN
DISPENSER:	GRAVITY

DATE TESTED:
NEXT TEST:
TEST METHOD:

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 142

DIST/DIR: 0.00 --

MAP ID: 14

NAME: PORT AUTHORITY OF NEW YORK / N. JERSEY
ADDRESS: 1 WORLD TRADE CENTER 88TH FLOOR SOUTH
NEW YORK NY 10048

REV: 07/01/00
ID1: PBS2-293563
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 435-8518

CONTACT: JOHN CASTALDO

TANK NUMBER: 004 **TANK STATUS:** IN SERVICE
INSTALLED: 3/1/84 **CLOSED:**
TANK CAPACITY: 275 GALLONS
PRODUCT: # 1, 2, OR 4 FUEL OIL

TANK TYPE: STAINLESS STEEL ALLOY
TANK LOCATION: ABOVEGROUND ON SADDLES, LEGS, STILTS, RACK, OR CRADLE
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: NONE
PIPE TYPE: STEEL/IRON
PIPE LOCATION: ABOVE GROUND
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: NONE
SECONDARY CONTAINMENT: 00
LEAK DETECTION: IN-TANK SYSTEM
OVERFILL PROTECTION: CATCH BASIN
DISPENSER: GRAVITY
DATE TESTED:
NEXT TEST:
TEST METHOD:

TANK NUMBER: 005 **TANK STATUS:** IN SERVICE
INSTALLED: **CLOSED:**
TANK CAPACITY: 1080 GALLONS
PRODUCT: # 1, 2, OR 4 FUEL OIL

TANK TYPE: STAINLESS STEEL ALLOY
TANK LOCATION: ABOVEGROUND
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: PAINTED/ASPHALT COATING
PIPE TYPE: NONE
PIPE LOCATION: ABOVE GROUND
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: NONE
SECONDARY CONTAINMENT: 08
LEAK DETECTION: 00
OVERFILL PROTECTION: 45
DISPENSER: GRAVITY
DATE TESTED:
NEXT TEST:
TEST METHOD:

TANK NUMBER: 006 **TANK STATUS:** CLOSED - REMOVED
INSTALLED: **CLOSED:**
TANK CAPACITY: 55 GALLONS
PRODUCT: EMPTY

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 142 **DIST/DIR:** 0.00 -- **MAP ID:** 14

NAME: PORT AUTHORITY OF NEW YORK / N. JERSEY
ADDRESS: 1 WORLD TRADE CENTER 88TH FLOOR SOUTH
NEW YORK NY 10048

REV: 07/01/00
ID1: PBS2-293563
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 435-8518

CONTACT: JOHN CASTALDO

TANK TYPE:
TANK LOCATION:
INTERNAL PROTECTION:
EXTERNAL PROTECTION:
PIPE TYPE:
PIPE LOCATION:
INTERNAL PROTECTION:
EXTERNAL PROTECTION: NONE
SECONDARY CONTAINMENT:
LEAK DETECTION:
OVERFILL PROTECTION:
DISPENSER:
DATE TESTED:
NEXT TEST:
TEST METHOD:

TANK NUMBER: 007 **TANK STATUS:** IN SERVICE
INSTALLED: **CLOSED:**
TANK CAPACITY: 275 GALLONS
PRODUCT: # 1, 2, OR 4 FUEL OIL

TANK TYPE: STAINLESS STEEL ALLOY
TANK LOCATION: ABOVEGROUND
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: NONE
PIPE TYPE: STEEL/IRON
PIPE LOCATION: ABOVE GROUND
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: NONE
SECONDARY CONTAINMENT: 07
LEAK DETECTION: 00
OVERFILL PROTECTION: 52
DISPENSER: GRAVITY
DATE TESTED:
NEXT TEST:
TEST METHOD:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 143 **DIST/DIR:** 0.00 -- **MAP ID:** 40

NAME: PORT AUTHORITY OF NY & NJ ADDRESS: FIVE WORLD TRADE CENTER NEW YORK NY 10048 CONTACT: JOHN CASTALDO	REV: 07/01/00 ID1: PBS2-604231 ID2: STATUS: ACTIVE PBS FACILITY PHONE: (212) 435-8518
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PETROLEUM BULK STORAGE FACILITY INFORMATION

TYPE OF SITE: OTHER			
TOTAL ACTIVE TANKS ON SITE: 2			
TOTAL FACILITY CAPACITY: 20000 GALLONS			
OLD PBS NUMBER:	CBS NUMBER:	SPDES NUMBER:	
ADDITIONAL ADDRESS INFO: B-2 LEVEL			

TYPE OF OWNER:
OWNER SUB TYPE:
OWNER ADDRESS: ONE WORLD TRADE CENTER
NEW YORK NY 10048
PHONE: (212) 435-8518

EMERGENCY CONTACT: WT OPERATIONS
PHONE: (212) 435-2728

MAILING NAME: PORT AUTHORITY OF NY & NJ
ADDRESS: TWO WORLD TRADE CENTER
NEW YORK NY 10048
ATTENTION: JOHN CASTALDO
PHONE: (212) 435-8518

CERTIFICATE DATE: 9/30/99 **EXP. DATE:** 9/17/04
RENEWAL DATE:

TANK INFORMATION

TANK NUMBER: 008	TANK STATUS: IN SERVICE	
INSTALLED: 6/1/99	CLOSED:	
TANK CAPACITY: 10000 GALLONS		
PRODUCT: # 1, 2, OR 4 FUEL OIL		
TANK TYPE: STEEL/CARBON STEEL		
TANK LOCATION: ABOVEGROUND ON SADDLES, LEGS, STILTS, RACK, OR CRADLE		
INTERNAL PROTECTION: NONE		
EXTERNAL PROTECTION: WRAPPED (PIPING)		
PIPE TYPE: STEEL/IRON		
PIPE LOCATION: ABOVE GROUND		
INTERNAL PROTECTION: NONE		
EXTERNAL PROTECTION: WRAPPED (PIPING)		
SECONDARY CONTAINMENT: 09		
LEAK DETECTION: 09		
OVERFILL PROTECTION: FLOAT VENT VALVE		
DISPENSER: SUCTION		

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 143

DIST/DIR: 0.00 --

MAP ID: 40

NAME: PORT AUTHORITY OF NY & NJ
ADDRESS: FIVE WORLD TRADE CENTER
NEW YORK NY 10048

REV: 07/01/00
ID1: PBS2-604231
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 435-8518

CONTACT: JOHN CASTALDO

DATE TESTED:
NEXT TEST:
TEST METHOD:

TANK NUMBER: 009
INSTALLED: 6/1/99
TANK CAPACITY: 10000 GALLONS
PRODUCT: # 1, 2, OR 4 FUEL OIL

TANK STATUS: IN SERVICE
CLOSED:

TANK TYPE: STEEL/CARBON STEEL
TANK LOCATION: ABOVEGROUND ON SADDLES, LEGS, STILTS, RACK, OR CRADLE
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: WRAPPED (PIPING)
PIPE TYPE: STEEL/IRON
PIPE LOCATION: ABOVE GROUND
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: WRAPPED (PIPING)
SECONDARY CONTAINMENT: 09
LEAK DETECTION: 09
OVERFILL PROTECTION: FLOAT VENT VALVE
DISPENSER: SUCTION
DATE TESTED:
NEXT TEST:
TEST METHOD:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

RCRA GENERATOR SITE			
SEARCH ID: 58	DIST/DIR: 0.00 --	MAP ID: 2	
NAME: US CUSTOMS HOUSE ADDRESS: 6 WORLD TRADE CENTER-BASEMENT NEW YORK NY 10048 NEW YORK CONTACT: WORLD TRADE CENTER CORP		REV: ID1: NY1470057802 ID2: STATUS: SGN PHONE: 2125551212	
ADDRESS: 2 WORLD TRADE CENTER NEW YORK NY 10048		NOTIFIED: PART A:	
ACTIVITIES: SG: GENERATES 100-1000 KG/MONTH OF HAZARDOUS WASTE			
CM+E LIST:	VIOL DATE:	AGENCY:	UPDATED: 11-10-98
RAATS:	ACTION DATE:	DOCKET:	UPDATED:
VIOL:			
NUM:			
ENF:			
DATE:	ASSESS:	SETTLE:	

RCRA GENERATOR SITE			
SEARCH ID: 59	DIST/DIR: 0.00 --	MAP ID: 2	
NAME: US CUSTOMS LABORATORY ADDRESS: 6 WORLD TRADE CENTER RM 867 NEW YORK NY 10048 CONTACT: SPRENZ ED		REV: ID1: NYD078892510 ID2: STATUS: SGN PHONE: 2124664591	
ADDRESS: NOT REQUIRED NOT REQUIRED WY 99999		NOTIFIED: PART A:	
ACTIVITIES: SG: GENERATES 100-1000 KG/MONTH OF HAZARDOUS WASTE			
CM+E LIST:	VIOL DATE: 08-26-94	AGENCY: S	UPDATED: 11-10-98
RAATS:	ACTION DATE:	DOCKET:	UPDATED:
VIOL: GER, GLB			
NUM: 3			
ENF:			
DATE:	ASSESS:	SETTLE:	

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

CERCLIS SITE

SEARCH ID: 2 **DIST/DIR:** 0.00 -- **MAP ID:** 2

NAME: US CUSTOMS SVC/MERCHANDISE CONTROL
ADDRESS: 6 WORLD TRADE CENTER ROOM 114
NEW YORK NY 10048

REV:
ID1: NY4470002433
ID2: 0203163
STATUS: N
PHONE:

CONTACT:

DESCRIPTION:

ACTION/QUALITY DISCOVERY	AGENCY/RPS Federal Facilities	START/RAA	END 01-10-1989
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PRELIMINARY ASSESSMENT NFRAP (No Further Remedial Action Planned)	Federal Facilities		09-27-1989
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RCRA GENERATOR SITE

SEARCH ID: 60 **DIST/DIR:** 0.00 -- **MAP ID:** 24

NAME: VISTA INTL HOTEL
ADDRESS: 3 WORLD TRADE CTR
NEW YORK NY 10048

REV:
ID1: NYD047043856
ID2:
STATUS: SGN
PHONE: 2129389100

CONTACT: FLUELLEIN LEWIS

ADDRESS: NOT REQUIRED
NOT REQUIRED WY 99999

NOTIFIED:
PART A:

ACTIVITIES: SG: GENERATES 100-1000 KG/MONTH OF HAZARDOUS WASTE

CM+E LIST:
RAATS:

VIOL DATE:
ACTION DATE:

AGENCY:
DOCKET:

UPDATED: 11-10-98
UPDATED:

VIOL:
NUM:
ENF:
DATE:

ASSESS:

SETTLE:

Environmental FirstSearch

Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 156 **DIST/DIR:** 0.00 -- **MAP ID:** 14

NAME:	WORLD TRADE CENTER	REV:	07/01/00
ADDRESS:	RIVER WATER PUMP STATION NEW YORK NY 10048	ID1:	CBS2-000204
		ID2:	
		STATUS:	ACTIVE FACILITY
CONTACT:	LEANDRO ZUCCHI	PHONE:	(212) 435-5798

CHEMICAL BULK STORAGE FACILITY INFORMATION

TYPE OF SITE:	UTILITY		
TOTAL ACTIVE TANKS ON SITE:	2		
TOTAL FACILITY CAPACITY:	4000 GALLONS		
PBS NUMBER:	2-293563	ICS NUMBER:	2-700884
ADDITIONAL ADDRESS INFO:		MOSF NUMBER:	

TYPE OF OWNER:	STATE GOVERNMENT
OWNER SUB TYPE:	OTHER
OWNER ADDRESS:	ONE WORLD TRADE CENTER, 88 FLOOR NEW YORK NY 10048
PHONE:	(212) 435-5798

EMERGENCY CONTACT:	LEANDRO ZUCCHI
PHONE:	(212) 435-5798

MAILING NAME:	THE PORT AUTHORITY OF NY & NJ
ADDRESS:	2 WORLD TRADE CENTER NEW YORK NY 10048
ATTENTION:	PHIL TAYLOR
PHONE:	(212) 435-8507

CERTIFICATE DATE:	8/26/99	EXP. DATE:	9/28/00
RENEWAL DATE:	6/1/00		

TANK INFORMATION

TANK NUMBER:	001	STATUS:	CLOSED - REMOVED
INSTALLED:	10/69	CLOSED:	08/95
TANK CAPACITY:	2000 GALLONS		
SUBSTANCE STORED:	SODIUM HYPOCHLORITE		
SUBSTANCE DESCRIPTION:	SINGLE HAZARDOUS SUBSTANCE ON DEC LIST		
HAZARDOUS SUBSTANCE %:	15		

TANK TYPE:	FIBERGLASS COATED STEEL
TANK LOCATION:	ABOVEGROUND
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	NONE
SECONDARY CONTAINMENT:	DIKING

PIPE TYPE:	6
PIPE LOCATION:	ABOVE GROUND
INTERNAL PROTECTION:	NONE

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 156 **DIST/DIR:** 0.00 -- **MAP ID:** 14

NAME: WORLD TRADE CENTER ADDRESS: RIVER WATER PUMP STATION NEW YORK NY 10048 CONTACT: LEANDRO ZUCCHI	REV: 07/01/00 ID1: CBS2-000204 ID2: STATUS: ACTIVE FACILITY PHONE: (212) 435-5798
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EXTERNAL PROTECTION: NONE
SECONDARY CONTAINMENT: VAULT WITH ACCESS

LEAK DETECTION: VAPOR WELL
OVERFILL PROTECTION: PRODUCT LEVEL GAUGE

TANK NUMBER:	001	STATUS:	CLOSED - REMOVED
INSTALLED:	09/95	CLOSED:	04/95
TANK CAPACITY:	2000 GALLONS		
SUBSTANCE STORED:	SODIUM HYPOCHLORITE		
SUBSTANCE DESCRIPTION:	SINGLE HAZARDOUS SUBSTANCE ON DEC LIST		
HAZARDOUS SUBSTANCE %:	15		

TANK TYPE: FIBERGLASS COATED STEEL
TANK LOCATION: ABOVEGROUND
INTERNAL PROTECTION: EPOXY LINER
EXTERNAL PROTECTION: FIBERGLASS
SECONDARY CONTAINMENT: DIKING

PIPE TYPE: 6
PIPE LOCATION: ABOVE GROUND
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: NONE
SECONDARY CONTAINMENT: VAULT WITH ACCESS

LEAK DETECTION: NONE
OVERFILL PROTECTION: PRODUCT LEVEL GAUGE

TANK NUMBER:	001	STATUS:	TEMPORARILY OUT OF SERVICE
INSTALLED:	09/95	CLOSED:	
TANK CAPACITY:	2000 GALLONS		
SUBSTANCE STORED:	SODIUM HYPOCHLORITE		
SUBSTANCE DESCRIPTION:	SINGLE HAZARDOUS SUBSTANCE ON DEC LIST		
HAZARDOUS SUBSTANCE %:	15		

TANK TYPE: FIBERGLASS COATED STEEL
TANK LOCATION: ABOVEGROUND ON SADDLES, LEGS, STILTS, RACK, OR CRADLE
INTERNAL PROTECTION: OTHER
EXTERNAL PROTECTION: OTHER
SECONDARY CONTAINMENT: DIKING

PIPE TYPE: OTHER
PIPE LOCATION: ABOVE GROUND
INTERNAL PROTECTION: NONE

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 156 **DIST/DIR:** 0.00 -- **MAP ID:** 14

NAME: WORLD TRADE CENTER ADDRESS: RIVER WATER PUMP STATION NEW YORK NY 10048 CONTACT: LEANDRO ZUCCHI	REV: 07/01/00 ID1: CBS2-000204 ID2: STATUS: ACTIVE FACILITY PHONE: (212) 435-5798
--	--

EXTERNAL PROTECTION: NONE
SECONDARY CONTAINMENT: VAULT WITH ACCESS

LEAK DETECTION: NONE
OVERFILL PROTECTION: OTHER

TANK NUMBER:	002	STATUS:	CLOSED - REMOVED
INSTALLED:	10/69	CLOSED:	08/95
TANK CAPACITY:	2000 GALLONS		
SUBSTANCE STORED:	SODIUM HYPOCHLORITE		
SUBSTANCE DESCRIPTION:	SINGLE HAZARDOUS SUBSTANCE ON DEC LIST		
HAZARDOUS SUBSTANCE %:	15		

TANK TYPE: FIBERGLASS COATED STEEL
TANK LOCATION: ABOVEGROUND
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: NONE
SECONDARY CONTAINMENT: DIKING

PIPE TYPE: 6
PIPE LOCATION: ABOVE GROUND
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: NONE
SECONDARY CONTAINMENT: VAULT WITH ACCESS

LEAK DETECTION: VAPOR WELL
OVERFILL PROTECTION: PRODUCT LEVEL GAUGE

TANK NUMBER:	002	STATUS:	CLOSED - REMOVED
INSTALLED:	09/95	CLOSED:	04/95
TANK CAPACITY:	2000 GALLONS		
SUBSTANCE STORED:	SODIUM HYPOCHLORITE		
SUBSTANCE DESCRIPTION:	SINGLE HAZARDOUS SUBSTANCE ON DEC LIST		
HAZARDOUS SUBSTANCE %:	15		

TANK TYPE: FIBERGLASS COATED STEEL
TANK LOCATION: ABOVEGROUND
INTERNAL PROTECTION: EPOXY LINER
EXTERNAL PROTECTION: FIBERGLASS
SECONDARY CONTAINMENT: DIKING

PIPE TYPE: 6
PIPE LOCATION: ABOVE GROUND
INTERNAL PROTECTION: NONE

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 156

DIST/DIR: 0.00 —

MAP ID: 14

NAME: WORLD TRADE CENTER
ADDRESS: RIVER WATER PUMP STATION
NEW YORK NY 10048

REV: 07/01/00
ID1: CBS2-000204
ID2:
STATUS: ACTIVE FACILITY
PHONE: (212) 435-5798

CONTACT: LEANDRO ZUCCHI

EXTERNAL PROTECTION: NONE
SECONDARY CONTAINMENT: VAULT WITH ACCESS

LEAK DETECTION: NONE
OVERFILL PROTECTION: PRODUCT LEVEL GAUGE

TANK NUMBER: 002 **STATUS:** TEMPORARILY OUT OF SERVICE
INSTALLED: 09/95 **CLOSED:**
TANK CAPACITY: 2000 GALLONS
SUBSTANCE STORED: SODIUM HYPOCHLORITE
SUBSTANCE DESCRIPTION: SINGLE HAZARDOUS SUBSTANCE ON DEC LIST
HAZARDOUS SUBSTANCE %: 15

TANK TYPE: FIBERGLASS COATED STEEL
TANK LOCATION: ABOVEGROUND ON SADDLES, LEGS, STILTS, RACK, OR CRADLE
INTERNAL PROTECTION: OTHER
EXTERNAL PROTECTION: OTHER
SECONDARY CONTAINMENT: DIKING

PIPE TYPE: OTHER
PIPE LOCATION: ABOVE GROUND
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: NONE
SECONDARY CONTAINMENT: VAULT WITH ACCESS

LEAK DETECTION: NONE
OVERFILL PROTECTION: OTHER

TANK NUMBER: 003 **STATUS:** CLOSED - REMOVED
INSTALLED: 10/69 **CLOSED:** 08/95
TANK CAPACITY: 2000 GALLONS
SUBSTANCE STORED: SODIUM HYPOCHLORITE
SUBSTANCE DESCRIPTION: SINGLE HAZARDOUS SUBSTANCE ON DEC LIST
HAZARDOUS SUBSTANCE %: 15

TANK TYPE: FIBERGLASS COATED STEEL
TANK LOCATION: ABOVEGROUND
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: NONE
SECONDARY CONTAINMENT: DIKING

PIPE TYPE: 6
PIPE LOCATION: ABOVE GROUND
INTERNAL PROTECTION: NONE

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

RCRA GENERATOR SITE

SEARCH ID: 63 **DIST/DIR:** 0.00 -- **MAP ID:** 20

NAME: WORLD TRADE CENTER - RAYTHEON
ADDRESS: 2 WORLD TRADE CENTER - 77TH FL
NEW YORK NY 10048
NEW YORK
CONTACT: PATUTO VINCENT

REV:
ID1: NYR000021105
ID2:
STATUS: LGN
PHONE: 2124358507

ADDRESS: 2 WORLD TRADE CENTER
NEW YORK NY 10048

NOTIFIED:
PART A:

ACTIVITIES: LG: GENERATES MORE THAN 1000 KG/MONTH OF HAZARDOUS WASTE

CM+E LIST:
RAATS:

VIOL DATE:
ACTION DATE:

AGENCY:
DOCKET:

UPDATED: 11-10-98
UPDATED:

VIOL:
NUM:
ENF:
DATE:

ASSESS:

SETTLE:

RCRA GENERATOR SITE

SEARCH ID: 64 **DIST/DIR:** 0.00 -- **MAP ID:** 14

NAME: WORLD TRADE CENTER OPERATIONS
ADDRESS: 1 WORLD TRADE CENTER B2 107
NEW YORK NY 10048

REV:
ID1: NYD981077480
ID2:
STATUS: LGN
PHONE: 2124668518

CONTACT: RITTER JOHN

ADDRESS: NOT REQUIRED
NOT REQUIRED WY 99999

NOTIFIED:
PART A:

ACTIVITIES: LG: GENERATES MORE THAN 1000 KG/MONTH OF HAZARDOUS WASTE

CM+E LIST:
RAATS:

VIOL DATE: 08-13-90
ACTION DATE:

AGENCY: S
DOCKET:

UPDATED: 11-10-98
UPDATED:

VIOL: GER
NUM: 2
ENF:
DATE:

ASSESS:

SETTLE:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

RCRA GENERATOR SITE

SEARCH ID: 64 **DIST/DIR:** 0.00 -- **MAP ID:** 14

NAME: WORLD TRADE CENTER OPERATIONS
ADDRESS: 1 WORLD TRADE CENTER B2 107
NEW YORK NY 10048

REV:
ID1: NYD981077480
ID2:
STATUS: LGN
PHONE: 2124668518

CONTACT: RITTER JOHN

ADDRESS: NOT REQUIRED
NOT REQUIRED WY 99999

NOTIFIED:
PART A:

ACTIVITIES: LG. GENERATES MORE THAN 1000 KG/MONTH OF HAZARDOUS WASTE

CM+E LIST: **VIOL DATE:** 08-13-90 **AGENCY:** S **UPDATED:** 11-10-98
RAATS: **ACTION DATE:** **DOCKET:** **UPDATED:**

VIOL: GER
NUM: 2
ENF:
DATE:

ASSESS:

SETTLE:

RCRA GENERATOR SITE

SEARCH ID: 65 **DIST/DIR:** 0.00 -- **MAP ID:** 14

NAME: WPIX FM & TV TRANSMITTER
ADDRESS: #1 WORLD TRADE CENTER
NEW YORK NY 10048

REV:
ID1: NYD982281412
ID2:
STATUS: SGN
PHONE: 2125551212

CONTACT: WPIX INC.

ADDRESS: NOT REQUIRED
NOT REQUIRED WY 99999

NOTIFIED:
PART A:

ACTIVITIES: SG. GENERATES 100-1000 KG/MONTH OF HAZARDOUS WASTE

CM+E LIST: **VIOL DATE:** **AGENCY:** **UPDATED:** 11-10-98
RAATS: **ACTION DATE:** **DOCKET:** **UPDATED:**

VIOL:
NUM:
ENF:
DATE:

ASSESS:

SETTLE:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 110 **DIST/DIR:** 0.01 NE **MAP ID:** 19

NAME: AMERICAN EXPRESS TOWER C
ADDRESS: 200 VESEY STREET
NEW YORK NY 10285

REV: 07/01/00
ID1: PBS2-297828
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 640-3030

CONTACT: LINDA MILIA

TANK NUMBER:	004	TANK STATUS:	IN SERVICE
INSTALLED:	5/1/85	CLOSED:	
TANK CAPACITY:	5000 GALLONS		
PRODUCT:	DIESEL		

TANK TYPE:	STEEL/CARBON STEEL
TANK LOCATION:	ABOVEGROUND
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	PAINTED/ASPHALT COATING
PIPE TYPE:	STEEL/IRON
PIPE LOCATION:	ABOVEGROUND/UNDERGROUND COMBINATION
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	PAINTED/ASPHALT COATING
SECONDARY CONTAINMENT:	8
LEAK DETECTION:	NONE
OVERFILL PROTECTION:	PRODUCT LEVEL GAUGE
DISPENSER:	SUCTION
DATE TESTED:	
NEXT TEST:	
TEST METHOD:	

TANK NUMBER:	005	TANK STATUS:	IN SERVICE
INSTALLED:	5/1/85	CLOSED:	
TANK CAPACITY:	275 GALLONS		
PRODUCT:	DIESEL		

TANK TYPE:	STEEL/CARBON STEEL
TANK LOCATION:	ABOVEGROUND
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	PAINTED/ASPHALT COATING
PIPE TYPE:	STEEL/IRON
PIPE LOCATION:	ABOVEGROUND/UNDERGROUND COMBINATION
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	PAINTED/ASPHALT COATING
SECONDARY CONTAINMENT:	7
LEAK DETECTION:	NONE
OVERFILL PROTECTION:	PRODUCT LEVEL GAUGE
DISPENSER:	SUCTION
DATE TESTED:	
NEXT TEST:	
TEST METHOD:	

TANK NUMBER:	006	TANK STATUS:	IN SERVICE
INSTALLED:	11/1/84	CLOSED:	
TANK CAPACITY:	275 GALLONS		
PRODUCT:	DIESEL		

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS			
SEARCH ID: 110	DIST/DIR: 0.01 NE	MAP ID: 19	
NAME: AMERICAN EXPRESS TOWER C ADDRESS: 200 VESEY STREET NEW YORK NY 10285 CONTACT: LINDA MILIA		REV: 07/01/00 ID1: PBS2-297828 ID2: STATUS: ACTIVE PBS FACILITY PHONE: (212) 640-3030	
TANK TYPE:	STEEL/CARBON STEEL		
TANK LOCATION:	ABOVEGROUND		
INTERNAL PROTECTION:	NONE		
EXTERNAL PROTECTION:	PAINTED/ASPHALT COATING		
PIPE TYPE:	STEEL/IRON		
PIPE LOCATION:	ABOVE GROUND		
INTERNAL PROTECTION:	NONE		
EXTERNAL PROTECTION:	PAINTED/ASPHALT COATING		
SECONDARY CONTAINMENT:	7		
LEAK DETECTION:	NONE		
OVERFILL PROTECTION:	PRODUCT LEVEL GAUGE		
DISPENSER:	SUCTION		
DATE TESTED:			
NEXT TEST:			
TEST METHOD:			

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 115 **DIST/DIR:** 0.01 NE **MAP ID:** 42

NAME: BELL ATLANTIC
ADDRESS: 140 WEST STREET
NEW YORK NY 10007

REV: 07/01/00
ID1: PBS2-344966
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (800) 339-6144

CONTACT: BELL ATLANTIC

PETROLEUM BULK STORAGE FACILITY INFORMATION

TYPE OF SITE: UTILITY

TOTAL ACTIVE TANKS ON SITE: 7

TOTAL FACILITY CAPACITY: 38385 GALLONS

OLD PBS NUMBER: **CBS NUMBER:** **SPDES NUMBER:**

ADDITIONAL ADDRESS INFO: 140 WEST STREET

TYPE OF OWNER: CORPORATE/COMMERCIAL
OWNER SUB TYPE: NEW YORK TELEPHONE
OWNER ADDRESS: 221 EAST 37TH STREET, 4TH FLOOR
NEW YORK NY 10016
PHONE: (800) 339-6144

EMERGENCY CONTACT: BELL ATLANTIC
PHONE: (800) 386-9639

MAILING NAME: BELL ATLANTIC
ADDRESS: 221 EAST 37TH STREET, 4TH FLOOR
NEW YORK NY 10016
ATTENTION: KATHLEEN TOBIN
PHONE: (212) 338-6731

CERTIFICATE DATE: 5/27/99 **EXP. DATE:** 12/14/02
RENEWAL DATE: 9/29/97

TANK INFORMATION

TANK NUMBER: 001 **TANK STATUS:** CLOSED - IN PLACE
INSTALLED: **CLOSED:**
TANK CAPACITY: 17000 GALLONS
PRODUCT: KEROSENE

TANK TYPE: STEEL/CARBON STEEL
TANK LOCATION: ABOVEGROUND ON SADDLES, LEGS, STILTS, RACK, OR CRADLE
INTERNAL PROTECTION: EPOXY LINER
EXTERNAL PROTECTION:
PIPE TYPE: STEEL/IRON
PIPE LOCATION: ABOVE GROUND
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: NONE
SECONDARY CONTAINMENT: OTHER
LEAK DETECTION: 14
OVERFILL PROTECTION: 24
DISPENSER: SUCTION

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 115 **DIST/DIR:** 0.01 NE **MAP ID:** 42

NAME: BELL ATLANTIC
ADDRESS: 140 WEST STREET
NEW YORK NY 10007

REV: 07/01/00
ID1: PBS2-344966
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (800) 339-6144

CONTACT: BELL ATLANTIC

DATE TESTED:
NEXT TEST:
TEST METHOD:

TANK NUMBER:	002	TANK STATUS:	CLOSED - IN PLACE
INSTALLED:		CLOSED:	
TANK CAPACITY:	17000 GALLONS		
PRODUCT:	KEROSENE		

TANK TYPE:	STEEL/CARBON STEEL
TANK LOCATION:	ABOVEGROUND ON SADDLES, LEGS, STILTS, RACK, OR CRADLE
INTERNAL PROTECTION:	EPOXY LINER
EXTERNAL PROTECTION:	
PIPE TYPE:	STEEL/IRON
PIPE LOCATION:	ABOVE GROUND
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	NONE
SECONDARY CONTAINMENT:	OTHER
LEAK DETECTION:	14
OVERFILL PROTECTION:	24
DISPENSER:	SUCTION

DATE TESTED:
NEXT TEST:
TEST METHOD:

TANK NUMBER:	003	TANK STATUS:	CLOSED - IN PLACE
INSTALLED:		CLOSED:	
TANK CAPACITY:	17000 GALLONS		
PRODUCT:	KEROSENE		

TANK TYPE:	STEEL/CARBON STEEL
TANK LOCATION:	ABOVEGROUND ON SADDLES, LEGS, STILTS, RACK, OR CRADLE
INTERNAL PROTECTION:	EPOXY LINER
EXTERNAL PROTECTION:	
PIPE TYPE:	STEEL/IRON
PIPE LOCATION:	ABOVE GROUND
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	NONE
SECONDARY CONTAINMENT:	OTHER
LEAK DETECTION:	14
OVERFILL PROTECTION:	24
DISPENSER:	SUCTION

DATE TESTED:
NEXT TEST:
TEST METHOD:

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 115 **DIST/DIR:** 0.01 NE **MAP ID:** 42

NAME: BELL ATLANTIC ADDRESS: 140 WEST STREET NEW YORK NY 10007 CONTACT: BELL ATLANTIC	REV: 07/01/00 ID1: PBS2-344966 ID2: STATUS: ACTIVE PBS FACILITY PHONE: (800) 339-6144
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TANK NUMBER:	004	TANK STATUS:	IN SERVICE
INSTALLED:		CLOSED:	
TANK CAPACITY:	3500 GALLONS		
PRODUCT:	DIESEL		
TANK TYPE:	STEEL/CARBON STEEL		
TANK LOCATION:	ABOVEGROUND ON SADDLES, LEGS, STILTS, RACK, OR CRADLE		
INTERNAL PROTECTION:	NONE		
EXTERNAL PROTECTION:	OTHER		
PIPE TYPE:	STEEL/IRON		
PIPE LOCATION:	ABOVE GROUND		
INTERNAL PROTECTION:	NONE		
EXTERNAL PROTECTION:	NONE		
SECONDARY CONTAINMENT:	08		
LEAK DETECTION:	14		
OVERFILL PROTECTION:	25		
DISPENSER:	0		
DATE TESTED:			
NEXT TEST:			
TEST METHOD:			

TANK NUMBER:	005	TANK STATUS:	IN SERVICE
INSTALLED:		CLOSED:	
TANK CAPACITY:	275 GALLONS		
PRODUCT:	KEROSENE		
TANK TYPE:	STEEL/CARBON STEEL		
TANK LOCATION:	ABOVEGROUND ON SADDLES, LEGS, STILTS, RACK, OR CRADLE		
INTERNAL PROTECTION:	NONE		
EXTERNAL PROTECTION:	PAINTED/ASPHALT COATING		
PIPE TYPE:	STEEL/IRON		
PIPE LOCATION:	ABOVE GROUND		
INTERNAL PROTECTION:	NONE		
EXTERNAL PROTECTION:	NONE		
SECONDARY CONTAINMENT:	08		
LEAK DETECTION:	01		
OVERFILL PROTECTION:	AUTOMATIC SHUTOFF		
DISPENSER:			
DATE TESTED:			
NEXT TEST:			
TEST METHOD:			

TANK NUMBER:	006	TANK STATUS:	IN SERVICE
INSTALLED:		CLOSED:	
TANK CAPACITY:	275 GALLONS		
PRODUCT:	KEROSENE		

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 115 **DIST/DIR:** 0.01 NE **MAP ID:** 42

NAME: BELL ATLANTIC ADDRESS: 140 WEST STREET NEW YORK NY 10007 CONTACT: BELL ATLANTIC	REV: 07/01/00 ID1: PBS2-344966 ID2: STATUS: ACTIVE PBS FACILITY PHONE: (800) 339-6144
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TANK TYPE:	STEEL/CARBON STEEL
TANK LOCATION:	ABOVEGROUND ON SADDLES, LEGS, STILTS, RACK, OR CRADLE
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	PAINTED/ASPHALT COATING
PIPE TYPE:	STEEL/IRON
PIPE LOCATION:	ABOVE GROUND
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	NONE
SECONDARY CONTAINMENT:	08
LEAK DETECTION:	01
OVERFILL PROTECTION:	AUTOMATIC SHUTOFF
DISPENSER:	
DATE TESTED:	
NEXT TEST:	
TEST METHOD:	

TANK NUMBER:	007	TANK STATUS:	IN SERVICE
INSTALLED:		CLOSED:	
TANK CAPACITY:	60 GALLONS		
PRODUCT:	KEROSENE		

TANK TYPE:	STEEL/CARBON STEEL
TANK LOCATION:	ABOVEGROUND ON SADDLES, LEGS, STILTS, RACK, OR CRADLE
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	PAINTED/ASPHALT COATING
PIPE TYPE:	STEEL/IRON
PIPE LOCATION:	ABOVE GROUND
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	NONE
SECONDARY CONTAINMENT:	07
LEAK DETECTION:	00
OVERFILL PROTECTION:	AUTOMATIC SHUTOFF
DISPENSER:	
DATE TESTED:	
NEXT TEST:	
TEST METHOD:	

TANK NUMBER:	008	TANK STATUS:	IN SERVICE
INSTALLED:		CLOSED:	
TANK CAPACITY:	275 GALLONS		
PRODUCT:	KEROSENE		

TANK TYPE:	STEEL/CARBON STEEL
TANK LOCATION:	ABOVEGROUND ON SADDLES, LEGS, STILTS, RACK, OR CRADLE
INTERNAL PROTECTION:	NONE

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 115 **DIST/DIR:** 0.01 NE **MAP ID:** 42

NAME: BELL ATLANTIC
ADDRESS: 140 WEST STREET
NEW YORK NY 10007

REV: 07/01/00
ID1: PBS2-344966
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (800) 339-6144

CONTACT: BELL ATLANTIC

EXTERNAL PROTECTION: PAINTED/ASPHALT COATING
PIPE TYPE: STEEL/IRON
PIPE LOCATION: ABOVE GROUND
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: NONE
SECONDARY CONTAINMENT: 08
LEAK DETECTION: 01
OVERFILL PROTECTION: AUTOMATIC SHUTOFF
DISPENSER:
DATE TESTED:
NEXT TEST:
TEST METHOD:

TANK NUMBER: 009 **TANK STATUS:** IN SERVICE
INSTALLED: 4/1/99 **CLOSED:**
TANK CAPACITY: 14000 GALLONS
PRODUCT: KEROSENE

TANK TYPE: STEEL/CARBON STEEL
TANK LOCATION: ABOVEGROUND ON SADDLES, LEGS, STILTS, RACK, OR CRADLE
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: PAINTED/ASPHALT COATING
PIPE TYPE: STEEL/IRON
PIPE LOCATION: ABOVE GROUND
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: PAINTED/ASPHALT COATING
SECONDARY CONTAINMENT: 01
LEAK DETECTION: 01
OVERFILL PROTECTION: 25
DISPENSER:
DATE TESTED:
NEXT TEST:
TEST METHOD:

TANK NUMBER: 010 **TANK STATUS:** IN SERVICE
INSTALLED: 4/1/99 **CLOSED:**
TANK CAPACITY: 20000 GALLONS
PRODUCT: KEROSENE

TANK TYPE: STEEL/CARBON STEEL
TANK LOCATION: ABOVEGROUND ON SADDLES, LEGS, STILTS, RACK, OR CRADLE
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: PAINTED/ASPHALT COATING
PIPE TYPE: STEEL/IRON
PIPE LOCATION: ABOVE GROUND
INTERNAL PROTECTION: NONE

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

RCRA GENERATOR SITE

SEARCH ID: 21 **DIST/DIR:** 0.01 NE **MAP ID:** 19

NAME: CUSHMAN & WAKEFIELD - AMER
ADDRESS: 200 VESEY ST
NEW YORK NY 10281

REV:
ID1: NYR000059063
ID2:
STATUS: LGN
PHONE: 2126404944

CONTACT: FOLEY MICHAEL

DETAILS NOT AVAILABLE

RCRA GENERATOR SITE

SEARCH ID: 45 **DIST/DIR:** 0.01 NE **MAP ID:** 42

NAME: NEW YORK TELEPHONE CO
ADDRESS: 140 WEST ST
NEW YORK NY 10007
NEW YORK

REV:
ID1: NYD980582654
ID2:
STATUS: LGN
PHONE: 2125551212

CONTACT: NEW YORK TELEPHONE CO

ADDRESS: NOT REQUIRED
NOT REQUIRED WY 99999

NOTIFIED:
PART A:

ACTIVITIES: LG: GENERATES MORE THAN 1000 KG/MONTH OF HAZARDOUS WASTE

CM+E LIST:
RAATS:

VIOL DATE: 02-16-84
ACTION DATE:

AGENCY: S
DOCKET:

UPDATED: 11-10-98
UPDATED:

VIOL: GER
NUM: 1

ENF:
DATE:

ASSESS:

SETTLE:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 87 **DIST/DIR:** 0.01 SW **MAP ID:** 67

NAME: 114 LIBERTY ST ASSOCIATES ADDRESS: 114 LIBERTY ST NY NY 10006 CONTACT: 114 LIBERTY ASSOC	REV: 07/01/00 ID1: PBS2-332941 ID2: STATUS: ACTIVE PBS FACILITY PHONE: (212) 594-3336
--	--

PETROLEUM BULK STORAGE FACILITY INFORMATION

TYPE OF SITE: OTHER			
TOTAL ACTIVE TANKS ON SITE: 1			
TOTAL FACILITY CAPACITY: 5000 GALLONS			
OLD PBS NUMBER:	CBS NUMBER:	SPDES NUMBER:	
ADDITIONAL ADDRESS INFO: 114 LIBERTY ST			

TYPE OF OWNER:	CORPORATE/COMMERCIAL
OWNER SUB TYPE:	
OWNER ADDRESS:	1350 BROADWAY RM 510 NY NY 10018
PHONE:	(212) 594-3336

EMERGENCY CONTACT:	SAMUEL SUTTON
PHONE:	(212) 594-3336

MAILING NAME:	114 LIBERTY ASSOC
ADDRESS:	1350 BROADWAY RM 510 NY NY 10018
ATTENTION:	SAMUEL SUTTON
PHONE:	(212) 594-3336

CERTIFICATE DATE: 9/21/92	EXP. DATE: 11/19/97	
RENEWAL DATE: 9/2/97		

TANK INFORMATION

TANK NUMBER: 001	TANK STATUS: IN SERVICE	
INSTALLED:	CLOSED:	
TANK CAPACITY: 5000 GALLONS		
PRODUCT: # 1, 2, OR 4 FUEL OIL		

TANK TYPE:	STEEL/CARBON STEEL
TANK LOCATION:	UNDERGROUND, VAULTED, WITH ACCESS
INTERNAL PROTECTION:	
EXTERNAL PROTECTION:	
PIPE TYPE:	STEEL/IRON
PIPE LOCATION:	
INTERNAL PROTECTION:	
EXTERNAL PROTECTION:	
SECONDARY CONTAINMENT:	NONE
LEAK DETECTION:	NONE
OVERFILL PROTECTION:	PRODUCT LEVEL GAUGE
DISPENSER:	SUCTION

- Continued on next page -

Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 87

DIST/DIR: 0.01 SW

MAP ID: 67

NAME: 114 LIBERTY ST ASSOCIATES
ADDRESS: 114 LIBERTY ST
NY NY 10006

REV: 07/01/00
ID1: PBS2-332941
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 594-3336

CONTACT: 114 LIBERTY ASSOC

DATE TESTED:
NEXT TEST:
TEST METHOD:

***Environmental FirstSearch
Site Detail Report***

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

RCRA GENERATOR SITE

SEARCH ID: 9 **DIST/DIR:** 0.01 SW **MAP ID:** 9

NAME: BANKERS TRUST
ADDRESS: 130 LIBERTY ST
NEW YORK NY 10006

REV:
ID1: NYD176893428
ID2:
STATUS: LGN
PHONE: 2125551212

CONTACT: FILCHUC DAVID

ADDRESS: NOT REQUIRED
NOT REQUIRED WY 99999

NOTIFIED:
PART A:

ACTIVITIES: LG: GENERATES MORE THAN 1000 KG/MONTH OF HAZARDOUS WASTE

CM+E LIST:
RAATS:

VIOL DATE:
ACTION DATE:

AGENCY:
DOCKET:

UPDATED: 11-10-98
UPDATED:

VIOL:
NUM:
ENF:
DATE:

ASSESS:

SETTLE:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 126 **DIST/DIR:** 0.01 SW **MAP ID:** 93

NAME: ENGINE 10 / LADDER 10 ADDRESS: 124 LIBERTY STREET MANHATTAN NY 10006 CONTACT: COMPANY OFFICER	REV: 07/01/00 ID1: PBS2-357685 ID2: STATUS: ACTIVE PBS FACILITY PHONE: (212) 570-4210
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PETROLEUM BULK STORAGE FACILITY INFORMATION

TYPE OF SITE:	OTHER		
TOTAL ACTIVE TANKS ON SITE:	2		
TOTAL FACILITY CAPACITY:	1330 GALLONS		
OLD PBS NUMBER:		CBS NUMBER:	SPDES NUMBER:
ADDITIONAL ADDRESS INFO:	124 LIBERTY STREET		
TYPE OF OWNER:	LOCAL GOVERNMENT		
OWNER SUB TYPE:	THE CITY OF NEW YORK		
OWNER ADDRESS:	9 METROTECH CTR.		
	BROOKLYN NY 11201-3857		
PHONE:	(718) 999-2094		
EMERGENCY CONTACT:	F.D.N.Y.		
PHONE:	(718) 403-1580		

MAILING NAME:	NEW YORK CITY FIRE DEPARTMENT-BLDG. MAINTENANCE
ADDRESS:	48-34 35TH STREET
	LONG ISLAND CITY NY 11101
ATTENTION:	DIRECTOR
PHONE:	(718) 784-6510

CERTIFICATE DATE:	12/21/98	EXP. DATE:	7/28/03
RENEWAL DATE:	7/3/96		

TANK INFORMATION

TANK NUMBER:	001	TANK STATUS:	CLOSED - IN PLACE
INSTALLED:	12/1/79	CLOSED:	11/1/98
TANK CAPACITY:	550 GALLONS		
PRODUCT:	DIESEL		
TANK TYPE:	STEEL/CARBON STEEL		
TANK LOCATION:	UNDERGROUND		
INTERNAL PROTECTION:	NONE		
EXTERNAL PROTECTION:	NONE		
PIPE TYPE:	STEEL/IRON		
PIPE LOCATION:	UNDERGROUND		
INTERNAL PROTECTION:	NONE		
EXTERNAL PROTECTION:	NONE		
SECONDARY CONTAINMENT:	NONE		
LEAK DETECTION:	NONE		
OVERFILL PROTECTION:	PRODUCT LEVEL GAUGE		
DISPENSER:	SUBMERSIBLE		

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 126

DIST/DIR: 0.01 SW

MAP ID: 93

NAME: ENGINE 10 / LADDER 10
ADDRESS: 124 LIBERTY STREET
MANHATTAN NY 10006

REV: 07/01/00
ID1: PBS2-357685
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 570-4210

CONTACT: COMPANY OFFICER

DATE TESTED:
NEXT TEST:
TEST METHOD:

TANK NUMBER:	002	TANK STATUS:	CLOSED - IN PLACE
INSTALLED:	12/1/79	CLOSED:	11/1/98
TANK CAPACITY:	550 GALLONS		
PRODUCT:	DIESEL		

TANK TYPE:	STEEL/CARBON STEEL
TANK LOCATION:	UNDERGROUND
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	NONE
PIPE TYPE:	STEEL/IRON
PIPE LOCATION:	UNDERGROUND
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	NONE
SECONDARY CONTAINMENT:	NONE
LEAK DETECTION:	NONE
OVERFILL PROTECTION:	PRODUCT LEVEL GAUGE
DISPENSER:	SUBMERSIBLE
DATE TESTED:	
NEXT TEST:	
TEST METHOD:	

TANK NUMBER:	003	TANK STATUS:	CLOSED - IN PLACE
INSTALLED:	12/1/79	CLOSED:	11/1/98
TANK CAPACITY:	550 GALLONS		
PRODUCT:	UNLEADED GASOLINE		

TANK TYPE:	STEEL/CARBON STEEL
TANK LOCATION:	UNDERGROUND
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	NONE
PIPE TYPE:	STEEL/IRON
PIPE LOCATION:	UNDERGROUND
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	NONE
SECONDARY CONTAINMENT:	NONE
LEAK DETECTION:	NONE
OVERFILL PROTECTION:	PRODUCT LEVEL GAUGE
DISPENSER:	SUBMERSIBLE
DATE TESTED:	
NEXT TEST:	
TEST METHOD:	

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 126 **DIST/DIR:** 0.01 SW **MAP ID:** 93

NAME: ENGINE 10 / LADDER 10 ADDRESS: 124 LIBERTY STREET MANHATTAN NY 10006 CONTACT: COMPANY OFFICER	REV: 07/01/00 ID1: PBS2-357685 ID2: STATUS: ACTIVE PBS FACILITY PHONE: (212) 570-4210
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TANK NUMBER:	004	TANK STATUS:	CLOSED - IN PLACE
INSTALLED:	12/1/79	CLOSED:	11/1/98
TANK CAPACITY:	550 GALLONS		
PRODUCT:	UNLEADED GASOLINE		

TANK TYPE:	STEEL/CARBON STEEL
TANK LOCATION:	UNDERGROUND
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	NONE
PIPE TYPE:	STEEL/IRON
PIPE LOCATION:	UNDERGROUND
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	NONE
SECONDARY CONTAINMENT:	NONE
LEAK DETECTION:	NONE
OVERFILL PROTECTION:	PRODUCT LEVEL GAUGE
DISPENSER:	SUBMERSIBLE
DATE TESTED:	
NEXT TEST:	
TEST METHOD:	

TANK NUMBER:	005	TANK STATUS:	IN SERVICE
INSTALLED:		CLOSED:	
TANK CAPACITY:	330 GALLONS		
PRODUCT:	DIESEL		

TANK TYPE:	STEEL/CARBON STEEL
TANK LOCATION:	ABOVEGROUND ON SADDLES, LEGS, STILTS, RACK, OR CRADLE
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	NONE
PIPE TYPE:	STEEL/IRON
PIPE LOCATION:	ABOVE GROUND
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	NONE
SECONDARY CONTAINMENT:	PREFABRICATED STEEL DIKE
LEAK DETECTION:	OTHER
OVERFILL PROTECTION:	VENT WHISTLE
DISPENSER:	SUCTION
DATE TESTED:	
NEXT TEST:	
TEST METHOD:	

TANK NUMBER:	006	TANK STATUS:	IN SERVICE
INSTALLED:	11/1/98	CLOSED:	
TANK CAPACITY:	1000 GALLONS		
PRODUCT:	DIESEL		

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 126 **DIST/DIR:** 0.01 SW **MAP ID:** 93

NAME: ENGINE 10 / LADDER 10	REV: 07/01/00
ADDRESS: 124 LIBERTY STREET	ID1: PBS2-357685
MANHATTAN NY 10006	ID2:
CONTACT: COMPANY OFFICER	STATUS: ACTIVE PBS FACILITY
	PHONE: (212) 570-4210

TANK TYPE:	FIBERGLASS REINFORCED PLASTIC (FRP)
TANK LOCATION:	UNDERGROUND
INTERNAL PROTECTION:	FIBERGLASS LINER (FRP)
EXTERNAL PROTECTION:	FIBERGLASS
PIPE TYPE:	FIBERGLASS
PIPE LOCATION:	UNDERGROUND
INTERNAL PROTECTION:	FIBERGLASS LINER (FRP)
EXTERNAL PROTECTION:	FIBERGLASS
SECONDARY CONTAINMENT:	DOUBLE-WALLED TANK
LEAK DETECTION:	14
OVERFILL PROTECTION:	25
DISPENSER:	SUCTION
DATE TESTED:	
NEXT TEST:	
TEST METHOD:	

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 161 **DIST/DIR:** 0.01 SW **MAP ID:** 93

NAME: NEW YORK CITY FD ENG 10	REV: 12/04/96
ADDRESS: 124 LIBERTY ST	ID1: 9610078
NEW YORK NY	ID2:
CONTACT:	STATUS: ACTIVE
	PHONE:

SPILL DATE: 11/12/96	DATE REPORTED: 11/12/96
SPILL TIME: 12:00	TIME REPORTED: 18:12

MATERIAL SPILLED: 0008	AMOUNT SPILLED: 0 G
MATERIAL CLASS: P	AMOUNT RECOVERED: 0 G

MATERIAL SPILLED: 0009	AMOUNT SPILLED: 0 G
MATERIAL CLASS: P	AMOUNT RECOVERED: 0 G

CAUSE OF SPILL:	TANK FAILURE
RESOURCE AFFECTED:	ON LAND
WATERBODY AFFECTED:	
SOURCE OF SPILL:	NON-COMMERCIAL/INSTITUTIONAL
REPORTED BY:	OTHER
CALLER REMARKS:	

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR:	KRIMGOLD	
SPILL CONTACT:	LT LYNCH	TELEPHONE: (212) 570-4210

SPILLER:	NEW YORK CITY DDC
ADDRESS:	

SPILLER CONTACT:	JERRY ALBERTI	TELEPHONE: (718) 391-1073
-------------------------	---------------	----------------------------------

CALLER:	NOTIFIER:
AGENCY:	AGENCY:
TELEPHONE:	TELEPHONE:

LAST DEC UPDATE: 12/04/96	CLOSE DATE: / /
DOES CLEAN UP MEET STANDARDS? NO	PENALTY RECOMMENDED? NO
DEC REMARKS:	

***Environmental FirstSearch
Site Detail Report***

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

FLOODPLAINS

SEARCH ID: 165 **DIST/DIR:** 0.02 NE **MAP ID:** 120

NAME: FEMA FLOOD PLAIN
ADDRESS:

REV:
ID1: 1154
ID2: 1161
STATUS: 500 YEAR
PHONE:

CONTACT:

AREA: 2.40653e-006
PERIMETER: 0.00879784
FIPS: 36061
COMMUNITY: 0497
FIRM PANEL: 3604970054B
QUAD: 40074-F1
FLOODWAY:
COBRA: COBRA_OUT
SFHA: OUT
SYMBOL: 11
PANEL TYPE: CBPP
STATE FIPS: 36
COUNTY FIPS: 061
COMM: 0497
PANEL: 0054B
QUAD UNIT: F1

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 146 **DIST/DIR:** 0.02 NE **MAP ID:** 108

NAME: SALOMON SMITH BARNEY
ADDRESS: 7 WORLD TRADE CENTER
NEW YORK NY 10048

REV: 07/01/00
ID1: PBS2-601553
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 783-6252

CONTACT: SALOMON SMITH BARNEY

PETROLEUM BULK STORAGE FACILITY INFORMATION

TYPE OF SITE: OTHER

TOTAL ACTIVE TANKS ON SITE: 2

TOTAL FACILITY CAPACITY: 12000 GALLONS

OLD PBS NUMBER:

CBS NUMBER:

SPDES NUMBER:

ADDITIONAL ADDRESS INFO: 7 WORLD TRADE CENTER

TYPE OF OWNER: CORPORATE/COMMERCIAL

OWNER SUB TYPE:

OWNER ADDRESS: 1 WORLD TRADE CENTER
NEW YORK NY 10048

PHONE: (212) 435-7000

EMERGENCY CONTACT: JOHN V. GLASS
PHONE: (212) 641-2487

MAILING NAME: SALOMON SMITH BARNEY
ADDRESS: 7 WORLD TRADE CENTER
NEW YORK NY 10048
ATTENTION: JOHN V. GLASS
PHONE: (212) 783-6252

CERTIFICATE DATE: 7/14/98 **EXP. DATE:** 7/27/03
RENEWAL DATE:

TANK INFORMATION

TANK NUMBER: 001 **TANK STATUS:** IN SERVICE
INSTALLED: **CLOSED:**
TANK CAPACITY: 6000 GALLONS
PRODUCT: DIESEL

TANK TYPE: FIBERGLASS REINFORCED PLASTIC (FRP)
TANK LOCATION: UNDERGROUND
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: NONE
PIPE TYPE: FIBERGLASS
PIPE LOCATION: UNDERGROUND
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: NONE
SECONDARY CONTAINMENT: 02
LEAK DETECTION: 01
OVERFILL PROTECTION: 62
DISPENSER: SUCTION

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 146

DIST/DIR: 0.02 NE

MAP ID: 108

NAME: SALOMON SMITH BARNEY
ADDRESS: 7 WORLD TRADE CENTER
NEW YORK NY 10048

REV: 07/01/00
ID1: PBS2-601553
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 783-6252

CONTACT: SALOMON SMITH BARNEY

DATE TESTED:
NEXT TEST:
TEST METHOD:

TANK NUMBER: 002 **TANK STATUS:** IN SERVICE
INSTALLED: **CLOSED:**
TANK CAPACITY: 6000 GALLONS
PRODUCT: DIESEL

TANK TYPE: FIBERGLASS REINFORCED PLASTIC (FRP)
TANK LOCATION: UNDERGROUND
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: NONE
PIPE TYPE: FIBERGLASS
PIPE LOCATION: UNDERGROUND
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: NONE
SECONDARY CONTAINMENT: 02
LEAK DETECTION: 01
OVERFILL PROTECTION: 62
DISPENSER: SUCTION
DATE TESTED:
NEXT TEST:
TEST METHOD:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 147 **DIST/DIR:** 0.02 NE **MAP ID:** 108

NAME: SEVEN WORLD TRADE CENTER
ADDRESS: 7 WORLD TRADE CENTER
NEW YORK NY 10048

REV: 07/01/00
ID1: PBS2-602283
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 619-6569

CONTACT: WALTER J. WEEMS III

PETROLEUM BULK STORAGE FACILITY INFORMATION

TYPE OF SITE: OTHER

TOTAL ACTIVE TANKS ON SITE: 2

TOTAL FACILITY CAPACITY: 23380 GALLONS

OLD PBS NUMBER:

CBS NUMBER:

SPDES NUMBER:

ADDITIONAL ADDRESS INFO:

TYPE OF OWNER: CORPORATE/COMMERCIAL

OWNER SUB TYPE:

OWNER ADDRESS: 521 FIFTH AVE
NEW YORK NY 10175

PHONE: (212) 619-6569

EMERGENCY CONTACT: MARTY MEEHAN
PHONE: (212) 619-6569

MAILING NAME: SILVERSTEIN PROPERTIES - BLDG MGT OFFICE
ADDRESS: 7 WORLD TRADE CENTER - 3RD FLOOR
NEW YORK NY 10048
ATTENTION: WALTER J. WEEMS III
PHONE: (212) 619-6569

CERTIFICATE DATE: 4/30/99 **EXP. DATE:** 5/24/04
RENEWAL DATE: 2/26/99

TANK INFORMATION

TANK NUMBER: 001 **TANK STATUS:** IN SERVICE
INSTALLED: 12/1/87 **CLOSED:**
TANK CAPACITY: 11690 GALLONS
PRODUCT: # 1, 2, OR 4 FUEL OIL

TANK TYPE: FIBERGLASS REINFORCED PLASTIC (FRP)
TANK LOCATION: UNDERGROUND
INTERNAL PROTECTION: FIBERGLASS LINER (FRP)
EXTERNAL PROTECTION: FIBERGLASS
PIPE TYPE: STEEL/IRON
PIPE LOCATION: ABOVEGROUND/UNDERGROUND COMBINATION
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: 59
SECONDARY CONTAINMENT: VAULT
LEAK DETECTION: VAPOR WELL
OVERFILL PROTECTION: 23
DISPENSER: SUCTION

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 147 **DIST/DIR:** 0.02 NE **MAP ID:** 108

NAME: SEVEN WORLD TRADE CENTER
ADDRESS: 7 WORLD TRADE CENTER
NEW YORK NY 10048

REV: 07/01/00
ID1: PBS2-602283
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 619-6569

CONTACT: WALTER J. WEEMS III

DATE TESTED:
NEXT TEST: 12/1/02
TEST METHOD:

TANK NUMBER: 002 **TANK STATUS:** IN SERVICE
INSTALLED: 12/1/87 **CLOSED:**
TANK CAPACITY: 11690 GALLONS
PRODUCT: # 1, 2, OR 4 FUEL OIL

TANK TYPE: FIBERGLASS REINFORCED PLASTIC (FRP)
TANK LOCATION: UNDERGROUND
INTERNAL PROTECTION: FIBERGLASS LINER (FRP)
EXTERNAL PROTECTION: FIBERGLASS
PIPE TYPE: STEEL/IRON
PIPE LOCATION: ABOVEGROUND/UNDERGROUND COMBINATION
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: 59
SECONDARY CONTAINMENT: VAULT
LEAK DETECTION: VAPOR WELL
OVERFILL PROTECTION: 23
DISPENSER: SUCTION
DATE TESTED:
NEXT TEST: 12/1/02
TEST METHOD:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

RCRA GENERATOR SITE

SEARCH ID: 33 **DIST/DIR:** 0.02 SE **MAP ID:** 30

NAME: METROPOLITAN LIFE INSURANCE CO
ADDRESS: 22 CORTLANDT ST
NEW YORK NY 10007

REV:
ID1: NYR000028514
ID2:
STATUS: SGN
PHONE: 2125787224

CONTACT: METROPOLITAN LIFE INSURANCE CO

ADDRESS: 200 PARK AVE 12TH FLOOR
NEW YORK NY 10007

NOTIFIED:
PART A:

ACTIVITIES: SG: GENERATES 100-1000 KG/MONTH OF HAZARDOUS WASTE

CM+E LIST:
RAATS:

VIOL DATE:
ACTION DATE:

AGENCY:
DOCKET:

UPDATED: 11-10-98
UPDATED:

VIOL:
NUM:
ENF:
DATE:

ASSESS:

SETTLE:

EMERGENCY RESPONSE NOTIFICATION SITE

SEARCH ID: 82 **DIST/DIR:** 0.03 NW **MAP ID:** 63

NAME:
ADDRESS: BATTERY PARK CITY NORTH COVE MARINA
MANHATTAN NY 10280
NEW YORK

REV:
ID1: 501008
ID2:
STATUS: UNKNOWN
PHONE:

CONTACT:

CERCLIS (Y/N):

MAT: UNKNOWN OIL **QUANT:** 0 UNKNOWN

LOCATION: BATTERY PARK CITY NORTH COVE MARINA
CITY: **REPORTED:** 07/24/96

SOURCE: UNKNOWN **MEDIUM:** WATER
UNKNOWN / UNKNOWN SHEEN SIGHTING, SHEEN SIZE 200 FT X 50 FT RAINBOW AND SILVE

CAUSE: UNKNOWN
R IN COLOR

ACT: NONE
RY:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 100 **DIST/DIR:** 0.04 SE **MAP ID:** 77

NAME: 20 VESEY STREET
ADDRESS: 20 VESEY STREET
NEW YORK NY 10007

REV: 07/01/00
ID1: PBS2-107026
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 732-7653

CONTACT: JAMES P VOMERO

PETROLEUM BULK STORAGE FACILITY INFORMATION

TYPE OF SITE: OTHER

TOTAL ACTIVE TANKS ON SITE: 1

TOTAL FACILITY CAPACITY: 5000 GALLONS

OLD PBS NUMBER:

CBS NUMBER:

SPDES NUMBER:

ADDITIONAL ADDRESS INFO: 20 VESEY STREET

TYPE OF OWNER: CORPORATE/COMMERCIAL

OWNER SUB TYPE:

OWNER ADDRESS: 20 VESEY STREET
NEW YORK CITY NY 10007

PHONE: (212) 732-7653

EMERGENCY CONTACT: CEDAR MANAGEMENT CORP
PHONE: (212) 732-7663

MAILING NAME: CEDAR MGMT CORP
ADDRESS: 20 VESEY STREET
NEW YORK NY 10007

ATTENTION:
PHONE: (212) 732-7653

CERTIFICATE DATE: 2/19/97 **EXP. DATE:** 3/24/02
RENEWAL DATE: 12/11/96

TANK INFORMATION

TANK NUMBER: 001 **TANK STATUS:** IN SERVICE
INSTALLED: **CLOSED:**
TANK CAPACITY: 5000 GALLONS
PRODUCT: # 1, 2, OR 4 FUEL OIL

TANK TYPE: STEEL/CARBON STEEL
TANK LOCATION: ABOVEGROUND
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: NONE
PIPE TYPE: STEEL/IRON
PIPE LOCATION: ABOVE GROUND
INTERNAL PROTECTION:
EXTERNAL PROTECTION: NONE
SECONDARY CONTAINMENT: VAULT
LEAK DETECTION: NONE
OVERFILL PROTECTION: PRODUCT LEVEL GAUGE
DISPENSER: SUCTION

- Continued on next page -

***Environmental FirstSearch
Site Detail Report***

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 100	DIST/DIR: 0.04 SE	MAP ID: 77
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NAME: 20 VESEY STREET
ADDRESS: 20 VESEY STREET
NEW YORK NY 10007

REV: 07/01/00
ID1: PBS2-107026
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 732-7653

CONTACT: JAMES P VOMERO

DATE TESTED:
NEXT TEST:
TEST METHOD:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 90 **DIST/DIR:** 0.04 SW **MAP ID:** 23

NAME: 130 CEDAR STREET
ADDRESS: 130 CEDAR STREET
NEW YORK NY 10006

REV: 07/01/00
ID1: PBS2-511536
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 732-5055

CONTACT: A J GOLDSTEIN & CO,INC

PETROLEUM BULK STORAGE FACILITY INFORMATION

TYPE OF SITE: OTHER

TOTAL ACTIVE TANKS ON SITE: 2

TOTAL FACILITY CAPACITY: 12500 GALLONS

OLD PBS NUMBER: **CBS NUMBER:**

ADDITIONAL ADDRESS INFO: 130 CEDAR STREET

SPDES NUMBER:

TYPE OF OWNER: CORPORATE/COMMERCIAL

OWNER SUB TYPE:

OWNER ADDRESS: 130 CEDAR STREET
NEW YORK NY 10006

PHONE: (212) 732-5055

EMERGENCY CONTACT: WILLIAM A GOLDSTEIN
HONE: (212) 732-5055

MAILING NAME: CAROL GAYNOR,ET AL

ADDRESS: 130 CEDAR STREET
NEW YORK NY 10006

ATTENTION: WILLIAN A. GOLDSTEIN

PHONE: (212) 732-5055

CERTIFICATE DATE: 8/20/98 **EXP. DATE:** 2/6/01

RENEWAL DATE: 11/1/95

TANK INFORMATION

TANK NUMBER: 001

TANK STATUS: IN SERVICE

INSTALLED:

CLOSED:

TANK CAPACITY: 9500 GALLONS

PRODUCT: # 5 OR 6 FUEL OIL

TANK TYPE: STEEL/CARBON STEEL

TANK LOCATION: UNDERGROUND, VAULTED, WITH ACCESS

INTERNAL PROTECTION: NONE

EXTERNAL PROTECTION: NONE

PIPE TYPE: STEEL/IRON

PIPE LOCATION: ABOVE GROUND

INTERNAL PROTECTION: NONE

EXTERNAL PROTECTION: NONE

SECONDARY CONTAINMENT: 01

LEAK DETECTION: 00

OVERFILL PROTECTION: PRODUCT LEVEL GAUGE

DISPENSER: SUCTION

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 90 **DIST/DIR:** 0.04 SW **MAP ID:** 23

NAME: 130 CEDAR STREET
ADDRESS: 130 CEDAR STREET
NEW YORK NY 10006

REV: 07/01/00
ID1: PBS2-511536
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 732-5055

CONTACT: A J GOLDSTEIN & CO,INC

DATE TESTED:
NEXT TEST:
TEST METHOD:

TANK NUMBER: 002 **TANK STATUS:** IN SERVICE
INSTALLED: **CLOSED:**
TANK CAPACITY: 3000 GALLONS
PRODUCT: # 1, 2, OR 4 FUEL OIL

TANK TYPE: STEEL/CARBON STEEL
TANK LOCATION: UNDERGROUND
INTERNAL PROTECTION: EPOXY LINER
EXTERNAL PROTECTION: NONE
PIPE TYPE: STEEL/IRON
PIPE LOCATION: ABOVE GROUND
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: NONE
SECONDARY CONTAINMENT: 01
LEAK DETECTION: 00
OVERFILL PROTECTION: PRODUCT LEVEL GAUGE
DISPENSER: SUCTION
DATE TESTED: 6/1/98
NEXT TEST: 6/1/03
TEST METHOD: HORNER EZ CHECK

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

FLOODPLAINS

SEARCH ID: 167 **DIST/DIR:** 0.04 SW **MAP ID:** 122

NAME: FEMA FLOOD PLAIN	REV:
ADDRESS:	ID1: 1164
	ID2: 1191
	STATUS: 500 YEAR
CONTACT:	PHONE:

AREA:	6.31714e-008
PERIMETER:	0.0010117
FIPS:	36061
COMMUNITY:	0497
FIRM PANEL:	3604970054B
QUAD:	40074-F1
FLOODWAY:	
COBRA:	COBRA_OUT
SFHA:	OUT
SYMBOL:	11
PANEL TYPE:	CBPP
STATE FIPS:	36
COUNTY FIPS:	061
COMM:	0497
PANEL:	0054B
QUAD UNIT:	F1

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

RCRA GENERATOR SITE

SEARCH ID: 26 **DIST/DIR:** 0.04 SW **MAP ID:** 23

NAME: FITCH GRAPHICS
ADDRESS: 130 CEDAR ST
NEW YORK NY 10006

REV:
ID1: NYD057293557
ID2:
STATUS: SGN
PHONE: 2126193800

CONTACT: CORSI MICHAEL

ADDRESS: NOT REQUIRED
NOT REQUIRED WY 99999

NOTIFIED:
PART A:

ACTIVITIES: SG: GENERATES 100-1000 KG/MONTH OF HAZARDOUS WASTE

CM+E LIST:
RAATS:

VIOL DATE:
ACTION DATE:

AGENCY:
DOCKET:

UPDATED: 11-10-98
UPDATED:

VIOL:
NUM:
ENF:
DATE:

ASSESS:

SETTLE:

RCRA GENERATOR SITE

SEARCH ID: 56 **DIST/DIR:** 0.04 SW **MAP ID:** 23

NAME: REALISTIC PRINTING CORP
ADDRESS: 130 CEDAR ST 7TH FLOOR
NEW YORK NY 10006

REV:
ID1: NYD116008889
ID2:
STATUS: LGN
PHONE: 2126194664

CONTACT: SCHNEIDER MICHAEL

ADDRESS: NOT REQUIRED
NOT REQUIRED WY 99999

NOTIFIED:
PART A:

ACTIVITIES: LG: GENERATES MORE THAN 1000 KG/MONTH OF HAZARDOUS WASTE

CM+E LIST:
RAATS:

VIOL DATE:
ACTION DATE:

AGENCY:
DOCKET:

UPDATED: 11-10-98
UPDATED:

VIOL:
NUM:
ENF:
DATE:

ASSESS:

SETTLE:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

RCRA GENERATOR SITE			
SEARCH ID: 56	DIST/DIR: 0.04 SW	MAP ID: 23	
NAME: REALISTIC PRINTING CORP ADDRESS: 130 CEDAR ST7TH FLOOR NEW YORK NY 10006 CONTACT: SCHNEIDER MICHAEL		REV: ID1: NYD116008889 ID2: STATUS: LGN PHONE: 2126194664	
ADDRESS: NOT REQUIRED NOT REQUIRED WY 99999		NOTIFIED: PART A:	
ACTIVITIES: LG: GENERATES MORE THAN 1000 KG/MONTH OF HAZARDOUS WASTE			
CM+E LIST: RAATS:	VIOL DATE: ACTION DATE:	AGENCY: DOCKET:	UPDATED: 11-10-98 UPDATED:
VIOL: NUM: ENF: DATE:	ASSESS:	SETTLE:	

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

EMERGENCY RESPONSE NOTIFICATION SITE

SEARCH ID: 67 **DIST/DIR:** 0.05 NE **MAP ID:** 16

NAME: CON EDISON ADDRESS: BARCLAY STREET NEW YORK NY 10023 NEW YORK CONTACT:	REV: 3/2/94 ID1: 373904 ID2: STATUS: FIXED FACILITY PHONE:
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SPILL INFORMATION

DATE OF SPILL: 3/2/94 **TIME OF SPILL:** 1100

PRODUCT RELEASED (1): ASBESTOS
QUANTITY (1): 0
UNITS (1): UNK

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED

AIR: NO	GROUNDWATER: NO
LAND: YES	FIXED FACILITY: NO
WATER: NO	OTHER: NO

WATERBODY AFFECTED BY RELEASE:

CAUSE OF RELEASE

DUMPING: NO	EQUIPMENT FAILURE: NO
NATURAL PHENOMENON: NO	OPERATOR ERROR: NO
OTHER CAUSE: YES	TRANSP. ACCIDENT: NO
UNKNOWN: NO	

ACTIONS TAKEN: UNKNOWN

RELEASE DETECTION: A STEAM LINE UNDER THE STREET WAS DAMAGED BY A CONTRACTOR

MISC. NOTES: COTP-NY CALLED TO INFORM EPA THAT NYCDEP WAS OVERSEEING CLEANUP. NYCDEP CONTACT IS STANLEY BALDWIN (718) 595-3682

DISCHARGER INFORMATION

DISCHARGER ID: 373904	DUN & BRADSTREET #:
TYPE OF DISCHARGER: PRIVATE ENTERPRISE	
NAME OF DISCHARGER: CON EDISON	
ADDRESS: 128 WEST END AVE NEW YORK NY 10023	

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

EMERGENCY RESPONSE NOTIFICATION SITE

SEARCH ID: 66 **DIST/DIR:** 0.05 NE **MAP ID:** 50

NAME: CON EDISON
ADDRESS: 90 BARKLAY ST
MANHATTAN NY

REV: 9/23/99
ID1: 643990
ID2:
STATUS: FIXED FACILITY
PHONE:

CONTACT:

SPILL INFORMATION

DATE OF SPILL: 9/23/99 **TIME OF SPILL:** 1630

PRODUCT RELEASED (1): ASBESTOS
QUANTITY (1): 0
UNITS (1): UNK

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED

AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE:

CAUSE OF RELEASE

DUMPING: NO **EQUIPMENT FAILURE:** NO
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: YES **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: COVERED DIRT WITH A TARP AND EXCAVATION WITH METAL PLATE / HAVE A HEPA TRUCK EN
ROUTE TO REMOVE DIRT AND CLEAN EXCAVATION /AIR MONITORIN

RELEASE DETECTION: DIRT SURROUNDING STREAM SERVICE DIRT SURROUNDING THE STEAM SERVICE / STEAM SERVICE IS
PROTECTED WITH ASBESTOS WRAP / THE AREA WAS DUG UP TO DO WORK IN STEAM SERVICE

MISC. NOTES: CALLER WILL NOTIFY: DEC AND DEP

DISCHARGER INFORMATION

DISCHARGER ID: 643990
TYPE OF DISCHARGER: PUBLIC UTILITY
NAME OF DISCHARGER: CON EDISON
ADDRESS: 128 WEST END AVE
NEW YORK NY 10023

DUN & BRADSTREET #:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

EMERGENCY RESPONSE NOTIFICATION SITE

SEARCH ID: 75 **DIST/DIR:** 0.05 NE **MAP ID:** 57

NAME: CON EDISON	REV: 1/27/99
ADDRESS: BARKLEY STREET BETWEEN CHURCH ST AND BROADWAY AND NEW YORK NY NEW YORK	ID1: 608365
	ID2:
CONTACT:	STATUS: FIXED FACILITY
	PHONE:

SPILL INFORMATION

DATE OF SPILL: 1/27/99 **TIME OF SPILL:** 1519

PRODUCT RELEASED (1): UNKNOWN OIL
QUANTITY (1): 0
UNITS (1): UNK

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED

AIR: NO	GROUNDWATER: NO	
LAND: YES	FIXED FACILITY: NO	
WATER: NO	OTHER: NO	
WATERBODY AFFECTED BY RELEASE:	CONCRETE	

CAUSE OF RELEASE

DUMPING: NO	EQUIPMENT FAILURE: NO	
NATURAL PHENOMENON: NO	OPERATOR ERROR: NO	
OTHER CAUSE: NO	TRANSP. ACCIDENT: NO	
UNKNOWN: NO		

ACTIONS TAKEN: INVESTIGATING THE SITUATION
RELEASE DETECTION: CALLER STATES THAT IT WAS REPORTED TO THEM THAT THEIR WORK CREWS WERE DUMPING OIL
MISC. NOTES: AREA AFFECTED: UNKNOWN / NO ADDITIONAL INFORMATION

DISCHARGER INFORMATION

DISCHARGER ID: 608365	DUN & BRADSTREET #:
TYPE OF DISCHARGER: PUBLIC UTILITY	
NAME OF DISCHARGER: CON EDISON	
ADDRESS: 4 IRVING PLACE NEW YORK NY	

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

RCRA GENERATOR SITE

SEARCH ID: 17 **DIST/DIR:** 0.05 NE **MAP ID:** 16

NAME: CON EDISON - BARCLAY STREET SUBSTATION
ADDRESS: 66 BARCLAY ST
NEW YORK NY 10038

REV:
ID1: NYR000012518
ID2:
STATUS: SGN
PHONE: 2124604833

CONTACT: KEEGAN ROBERT

ADDRESS: 4 IRVING PL
NEW YORK NY 10003

NOTIFIED:
PART A:

ACTIVITIES: LG: GENERATES MORE THAN 1000 KG/MONTH OF HAZARDOUS WASTE

CM+E LIST:
RAATS:

VIOL DATE:
ACTION DATE:

AGENCY:
DOCKET:

UPDATED: 11-10-98
UPDATED:

VIOL:
NUM:
ENF:
DATE:

ASSESS:

SETTLE:

EMERGENCY RESPONSE NOTIFICATION SITE

SEARCH ID: 68 **DIST/DIR:** 0.06 NE **MAP ID:** 51

NAME: CON EDISON
ADDRESS: 81 BARCLY ST
MANHATTAN NY 10007
NEW YORK

REV:
ID1: 518263
ID2:
STATUS: UNKNOWN
PHONE:

CONTACT:

CERCLIS (Y/N):

MAT: OIL, MISC: TRANSFORMER **QUANT:** 0 UNKNOWN

LOCATION: 81 BARCLY ST
CITY: NEW YORK NY 10009 **REPORTED:** 12/19/96

SOURCE: UNKNOWN **MEDIUM:** WATER
VOLT MOUNTED TRANSFORMER / UNKNOWN (MAY HAVE BEEN A MALFUNCTION)
CAUSE: UNKNOWN

ACT: LEAK WAS SECURED / NONE
RY:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 124 **DIST/DIR:** 0.06 NE **MAP ID:** 92

NAME: DISTRICT COUNCIL 37 AFSCME
ADDRESS: 125 BARCLAY STREET
NEW YORK NY 10007

REV: 07/01/00
ID1: PBS2-063568
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 815-1445

CONTACT: AL LOCASCIO

PETROLEUM BULK STORAGE FACILITY INFORMATION

TYPE OF SITE: OTHER

TOTAL ACTIVE TANKS ON SITE: 1

TOTAL FACILITY CAPACITY: 14000 GALLONS

OLD PBS NUMBER: **CBS NUMBER:**

SPDES NUMBER:

ADDITIONAL ADDRESS INFO: 125 BARCLAY STREET

TYPE OF OWNER: CORPORATE/COMMERCIAL

OWNER SUB TYPE:

OWNER ADDRESS: 125 BARCLAY STREET
NEW YORK NY 10007

PHONE: (212) 227-4063

EMERGENCY CONTACT: AL LOCASCIO
PHONE: (212) 654-4149

MAILING NAME: DISTRICT COUNCIL 37 BENEFITS
ADDRESS: 125 BARCLAY STREET
NEW YORK NY 10007
ATTENTION: RALPH M PEPE
PHONE: (212) 815-1445

CERTIFICATE DATE: 2/6/97 **EXP. DATE:** 3/10/02
RENEWAL DATE: 12/11/96

TANK INFORMATION

TANK NUMBER: 001 **TANK STATUS:** IN SERVICE
INSTALLED: 12/1/69 **CLOSED:**
TANK CAPACITY: 14000 GALLONS
PRODUCT: # 5 OR 6 FUEL OIL

TANK TYPE: STEEL/CARBON STEEL
TANK LOCATION: ABOVEGROUND

INTERNAL PROTECTION:

EXTERNAL PROTECTION:

PIPE TYPE: STEEL/IRON

PIPE LOCATION:

INTERNAL PROTECTION:

EXTERNAL PROTECTION:

SECONDARY CONTAINMENT: VAULT

LEAK DETECTION: OTHER

OVERFILL PROTECTION: PRODUCT LEVEL GAUGE

DISPENSER: SUCTION

- Continued on next page -

***Environmental FirstSearch
Site Detail Report***

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 124	DIST/DIR: 0.06 NE	MAP ID: 92
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NAME: DISTRICT COUNCIL 37 AFSCME
ADDRESS: 125 BARCLAY STREET
NEW YORK NY 10007

REV: 07/01/00
ID1: PBS2-063568
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 815-1445

CONTACT: AL LOCASCIO

DATE TESTED:
NEXT TEST:
TEST METHOD:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 149 **DIST/DIR:** 0.06 NE **MAP ID:** 110

NAME: THE BANK OF NEW YORK ADDRESS: 101 BARCLAY ST NY NY 10286 CONTACT: ANDREW DUVAL	REV: 07/01/00 ID1: PBS2-201669 ID2: STATUS: ACTIVE PBS FACILITY PHONE: (212) 815-2970
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PETROLEUM BULK STORAGE FACILITY INFORMATION

TYPE OF SITE:	OTHER	
TOTAL ACTIVE TANKS ON SITE:	4	
TOTAL FACILITY CAPACITY:	60000 GALLONS	
OLD PBS NUMBER:		CBS NUMBER:
ADDITIONAL ADDRESS INFO:	101 BARCLAY ST	SPDES NUMBER:

TYPE OF OWNER:	CORPORATE/COMMERCIAL
OWNER SUB TYPE:	
OWNER ADDRESS:	101 BARCLAY ST NEW YORK NY 10286
PHONE:	(212) 815-2970

EMERGENCY CONTACT:	ANDREW DUVAL
PHONE:	(718) 966-8505

MAILING NAME:	THE BANK OF NEW YORK
ADDRESS:	101 BARCLAY ST NEW YORK NY 10286
ATTENTION:	ANDREW DUVAL
PHONE:	(212) 815-2970

CERTIFICATE DATE:	7/29/97	EXP. DATE:	7/7/02
RENEWAL DATE:	6/11/97		

TANK INFORMATION

TANK NUMBER:	001	TANK STATUS:	IN SERVICE
INSTALLED:	5/1/83	CLOSED:	
TANK CAPACITY:	15000 GALLONS		
PRODUCT:	# 1, 2, OR 4 FUEL OIL		

TANK TYPE:	FIBERGLASS REINFORCED PLASTIC (FRP)
TANK LOCATION:	UNDERGROUND, VAULTED, WITH ACCESS
INTERNAL PROTECTION:	
EXTERNAL PROTECTION:	
PIPE TYPE:	STEEL/IRON
PIPE LOCATION:	
INTERNAL PROTECTION:	
EXTERNAL PROTECTION:	
SECONDARY CONTAINMENT:	NONE
LEAK DETECTION:	GROUNDWATER WELL
OVERFILL PROTECTION:	PRODUCT LEVEL GAUGE
DISPENSER:	SUCTION

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 149 **DIST/DIR:** 0.06 NE **MAP ID:** 110

NAME: THE BANK OF NEW YORK
ADDRESS: 101 BARCLAY ST
NY NY 10286

REV: 07/01/00
ID1: PBS2-201669
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 815-2970

CONTACT: ANDREW DUVAL

DATE TESTED:
NEXT TEST:
TEST METHOD:

TANK NUMBER:	002	TANK STATUS:	IN SERVICE
INSTALLED:	5/1/83	CLOSED:	
TANK CAPACITY:	15000 GALLONS		
PRODUCT:	# 1, 2, OR 4 FUEL OIL		

TANK TYPE: FIBERGLASS REINFORCED PLASTIC (FRP)
TANK LOCATION: UNDERGROUND, VAULTED, WITH ACCESS

INTERNAL PROTECTION:
EXTERNAL PROTECTION:
PIPE TYPE: STEEL/IRON

PIPE LOCATION:

INTERNAL PROTECTION:
EXTERNAL PROTECTION:

SECONDARY CONTAINMENT: NONE
LEAK DETECTION: GROUNDWATER WELL
OVERFILL PROTECTION: PRODUCT LEVEL GAUGE
DISPENSER: SUCTION

DATE TESTED:
NEXT TEST:
TEST METHOD:

TANK NUMBER:	003	TANK STATUS:	IN SERVICE
INSTALLED:	5/1/83	CLOSED:	
TANK CAPACITY:	15000 GALLONS		
PRODUCT:	# 1, 2, OR 4 FUEL OIL		

TANK TYPE: FIBERGLASS REINFORCED PLASTIC (FRP)
TANK LOCATION: UNDERGROUND, VAULTED, WITH ACCESS

INTERNAL PROTECTION:
EXTERNAL PROTECTION:
PIPE TYPE: STEEL/IRON

PIPE LOCATION:

INTERNAL PROTECTION:
EXTERNAL PROTECTION:

SECONDARY CONTAINMENT: NONE
LEAK DETECTION: GROUNDWATER WELL
OVERFILL PROTECTION: PRODUCT LEVEL GAUGE
DISPENSER: SUCTION

DATE TESTED:
NEXT TEST:
TEST METHOD:

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 149 **DIST/DIR:** 0.06 NE **MAP ID:** 110

NAME: THE BANK OF NEW YORK
ADDRESS: 101 BARCLAY ST
NY NY 10286

REV: 07/01/00
ID1: PBS2-201669
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 815-2970

CONTACT: ANDREW DUVAL

TANK NUMBER: 004 **TANK STATUS:** IN SERVICE
INSTALLED: 5/1/83 **CLOSED:**
TANK CAPACITY: 15000 GALLONS
PRODUCT: # 1, 2, OR 4 FUEL OIL

TANK TYPE: FIBERGLASS REINFORCED PLASTIC (FRP)
TANK LOCATION: UNDERGROUND, VAULTED, WITH ACCESS

INTERNAL PROTECTION:
EXTERNAL PROTECTION:

PIPE TYPE: STEEL/IRON

PIPE LOCATION:

INTERNAL PROTECTION:

EXTERNAL PROTECTION:

SECONDARY CONTAINMENT: NONE

LEAK DETECTION: GROUNDWATER WELL

OVERFILL PROTECTION: PRODUCT LEVEL GAUGE

DISPENSER: SUCTION

DATE TESTED:

NEXT TEST:

TEST METHOD:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 160 **DIST/DIR:** 0.06 SW **MAP ID:** 99

NAME: 90 WEST ST
ADDRESS: 90 WEST ST
MANHATTEN NY

REV: 12/04/96
ID1: 9610083
ID2:
STATUS: CLOSED
PHONE:

CONTACT:

SPILL DATE: 11/13/96
SPILL TIME: 07:00

DATE REPORTED: 11/13/96
TIME REPORTED: 07:33

MATERIAL SPILLED: 0002
MATERIAL CLASS: P

AMOUNT SPILLED: 5 G
AMOUNT RECOVERED: 5 G

CAUSE OF SPILL: TANK OVERFILL
RESOURCE AFFECTED: ON LAND
WATERBODY AFFECTED:
SOURCE OF SPILL: COMMERCIAL VEHICLE
REPORTED BY: RESPONSIBLE PARTY
CALLER REMARKS:

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR: TOMASELLO
SPILL CONTACT:

TELEPHONE:

SPILLER: MYSTIC TRANSPORTATION
ADDRESS: 1901 STEINWAY ST
ASTORIA, NY 11105-

SPILLER CONTACT:

TELEPHONE:

CALLER:
AGENCY:
TELEPHONE:

NOTIFIER:
AGENCY:
TELEPHONE:

LAST DEC UPDATE: 12/04/96
DOES CLEAN UP MEET STANDARDS? NO
DEC REMARKS:

CLOSE DATE: 11/13/96
PENALTY RECOMMENDED? NO

Environmental FirstSearch

Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 133 **DIST/DIR:** 0.06 SW **MAP ID:** 99

NAME: LASALLE PARTNERS MANGEMENT LTD.
ADDRESS: 90 WEST ST
NEW YORK NY 10006

REV: 07/01/00
ID1: PBS2-200212
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 732-9477

CONTACT: LASALLE PARTNERS MGMT. LTD.

PETROLEUM BULK STORAGE FACILITY INFORMATION

TYPE OF SITE: OTHER

TOTAL ACTIVE TANKS ON SITE: 2

TOTAL FACILITY CAPACITY: 20000 GALLONS

OLD PBS NUMBER:

CBS NUMBER:

SPDES NUMBER:

ADDITIONAL ADDRESS INFO: 90 WEST ST

TYPE OF OWNER: CORPORATE/COMMERCIAL

OWNER SUB TYPE:

OWNER ADDRESS: 292 MADISON AVENUE
NEW YORK NY 10017

PHONE: (212) 251-0101

EMERGENCY CONTACT: JOE CLARK
HONE: (800) 800-7759

MAILING NAME: LASALLE PARTNERS MANAGEMENT LTD.
ADDRESS: 90 WEST STREET
NEW YORK NY 10006
ATTENTION: NICK G. HAYDEN
PHONE: (212) 732-9477

CERTIFICATE DATE: 5/7/98 **EXP. DATE:** 10/23/02
RENEWAL DATE: 8/12/97

TANK INFORMATION

TANK NUMBER: 001 **TANK STATUS:** IN SERVICE
INSTALLED: 11/1/96 **CLOSED:** 11/1/96
TANK CAPACITY: 10000 GALLONS
PRODUCT: # 5 OR 6 FUEL OIL

TANK TYPE: STEEL/CARBON STEEL
TANK LOCATION: ABOVEGROUND ON SADDLES, LEGS, STILTS, RACK, OR CRADLE
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: NONE
PIPE TYPE: STEEL/IRON
PIPE LOCATION: ABOVE GROUND
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: NONE
SECONDARY CONTAINMENT: 01
LEAK DETECTION: 00
OVERFILL PROTECTION: 46
DISPENSER: SUCTION

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 133 **DIST/DIR:** 0.06 SW **MAP ID:** 99

NAME: LASALLE PARTNERS MANGEMENT LTD.
ADDRESS: 90 WEST ST
NEW YORK NY 10006

REV: 07/01/00
ID1: PBS2-200212
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 732-9477

CONTACT: LASALLE PARTNERS MGMT. LTD.

DATE TESTED:
NEXT TEST:
TEST METHOD:

TANK NUMBER: 02 **TANK STATUS:** IN SERVICE
INSTALLED: 11/1/96 **CLOSED:**
TANK CAPACITY: 10000 GALLONS
PRODUCT: # 5 OR 6 FUEL OIL

TANK TYPE: STEEL/CARBON STEEL
TANK LOCATION: ABOVEGROUND ON SADDLES, LEGS, STILTS, RACK, OR CRADLE
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: PAINTED/ASPHALT COATING
PIPE TYPE: STEEL/IRON
PIPE LOCATION: ABOVE GROUND
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: NONE
SECONDARY CONTAINMENT: 01
LEAK DETECTION: 00
OVERFILL PROTECTION: 46
DISPENSER: SUCTION
DATE TESTED:
NEXT TEST:
TEST METHOD:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

RCRA GENERATOR SITE

SEARCH ID: 30 **DIST/DIR:** 0.07 NE **MAP ID:** 27

NAME: MENDIK REALTY - 100 CHURCH STREET
ADDRESS: 100 CHURCH ST - BASEMENT
NEW YORK NY 10007

REV:
ID1: NY0000878512
ID2:
STATUS: VGN
PHONE: 2125571100

CONTACT: MENDIK REALTY

NOTIFIED:
PART A:

ADDRESS: 330 MADISON AVE
NEW YORK NY 10017

ACTIVITIES: VG: GENERATES LESS THAN 100 KG/MONTH OF HAZARDOUS WASTE

CM+E LIST:
RAATS:

VIOL DATE:
ACTION DATE:

AGENCY:
DOCKET:

UPDATED: 11-10-98
UPDATED:

VIOL:
NUM:
ENF:
DATE:

ASSESS:

SETTLE:

RCRA GENERATOR SITE

SEARCH ID: 10 **DIST/DIR:** 0.07 NW **MAP ID:** 10

NAME: BATTERY PARK CC TOWERA
ADDRESS: 200 LIBERTY ST
NEW YORK NY 10281
NEW YORK
CONTACT: OLYMPIA YORK

REV:
ID1: NYD982534497
ID2:
STATUS: SGN
PHONE: 2125551212

NOTIFIED:
PART A:

ADDRESS: NOT REQUIRED
NOT REQUIRED WY 99999

ACTIVITIES: SG: GENERATES 100-1000 KG/MONTH OF HAZARDOUS WASTE

CM+E LIST:
RAATS:

VIOL DATE:
ACTION DATE:

AGENCY:
DOCKET:

UPDATED: 11-10-98
UPDATED:

VIOL:
NUM:
ENF:
ATE:

ASSESS:

SETTLE:

***Environmental FirstSearch
Site Detail Report***

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

RCRA GENERATOR SITE

SEARCH ID: 22	DIST/DIR: 0.07 NW	MAP ID: 10
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NAME: DOW JONES & CO INC
ADDRESS: 200 LIBERTY ST - FLOOR 9-17
NEW YORK NY 10280

REV:
ID1: NY0000127027
ID2:
STATUS: VGN
PHONE: 2129453388

CONTACT: OLYMPIA & YORK

ADDRESS: 237 PARK AVE
NEW YORK NY 10017

NOTIFIED:
PART A:

ACTIVITIES: VG: GENERATES LESS THAN 100 KG/MONTH OF HAZARDOUS WASTE

CM+E LIST:
RAATS:

VIOL DATE:
ACTION DATE:

AGENCY:
DOCKET:

UPDATED: 11-10-98
UPDATED:

VIOL:
NUM:
ENF:
DATE:

ASSESS:

SETTLE:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 125 **DIST/DIR:** 0.07 NW **MAP ID:** 10

NAME: DOW JONES & COMPANY INC
ADDRESS: 200 LIBERTY ST
NEW YORK NY 10281

REV: 07/01/00
ID1: PBS2-044555
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 416-2000

CONTACT: DOW JONES & COMPANY INC

PETROLEUM BULK STORAGE FACILITY INFORMATION

TYPE OF SITE: OTHER

TOTAL ACTIVE TANKS ON SITE: 3

TOTAL FACILITY CAPACITY: 12275 GALLONS

OLD PBS NUMBER:

CBS NUMBER:

SPDES NUMBER:

ADDITIONAL ADDRESS INFO: 200 LIBERTY ST

TYPE OF OWNER: CORPORATE/COMMERCIAL

OWNER SUB TYPE:

OWNER ADDRESS: 200 LIBERTY ST
NEW YORK NY 10006

PHONE: (212) 416-2000

EMERGENCY CONTACT: WILLIAM BENECKE/DOW JONES & CO
PHONE: (212) 416-2000

MAILING NAME: DOW JONES & COMPANY INC
ADDRESS: 200 LIBERTY ST
NEW YORK NY 10281
ATTENTION: WILLIAM BENECKE
PHONE: (212) 416-2000

CERTIFICATE DATE: 4/17/97 **EXP. DATE:** 12/2/01
RENEWAL DATE: 4/25/97

TANK INFORMATION

TANK NUMBER: 001 **TANK STATUS:** IN SERVICE
INSTALLED: 10/1/85 **CLOSED:**
TANK CAPACITY: 6000 GALLONS
PRODUCT: DIESEL

TANK TYPE: STEEL/CARBON STEEL
TANK LOCATION: ABOVEGROUND
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: NONE
PIPE TYPE: STEEL/IRON
PIPE LOCATION: ABOVE GROUND
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: NONE
SECONDARY CONTAINMENT: 04
LEAK DETECTION: 04
OVERFILL PROTECTION: 24
DISPENSER: SUCTION

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 125 **DIST/DIR:** 0.07 NW **MAP ID:** 10

NAME: DOW JONES & COMPANY INC
ADDRESS: 200 LIBERTY ST
NEW YORK NY 10281

REV: 07/01/00
ID1: PBS2-044555
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 416-2000

CONTACT: DOW JONES & COMPANY INC

DATE TESTED:
NEXT TEST:
TEST METHOD:

TANK NUMBER:	002	TANK STATUS:	IN SERVICE
INSTALLED:	10/1/85	CLOSED:	
TANK CAPACITY:	6000 GALLONS		
PRODUCT:	DIESEL		

TANK TYPE:	STEEL/CARBON STEEL
TANK LOCATION:	ABOVEGROUND
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	NONE
PIPE TYPE:	STEEL/IRON
PIPE LOCATION:	ABOVE GROUND
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	NONE
SECONDARY CONTAINMENT:	04
LEAK DETECTION:	04
OVERFILL PROTECTION:	24
DISPENSER:	SUCTION

DATE TESTED:
NEXT TEST:
TEST METHOD:

TANK NUMBER:	0DA	TANK STATUS:	IN SERVICE
INSTALLED:	10/1/85	CLOSED:	
TANK CAPACITY:	275 GALLONS		
PRODUCT:	DIESEL		

TANK TYPE:	STEEL/CARBON STEEL
TANK LOCATION:	ABOVEGROUND
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	NONE
PIPE TYPE:	STEEL/IRON
PIPE LOCATION:	ABOVE GROUND
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	NONE
SECONDARY CONTAINMENT:	04
LEAK DETECTION:	04
OVERFILL PROTECTION:	52
DISPENSER:	GRAVITY

DATE TESTED:
NEXT TEST:
TEST METHOD:

***Environmental FirstSearch
Site Detail Report***

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

RCRA GENERATOR SITE

SEARCH ID: 53	DIST/DIR: 0.07 NW	MAP ID: 10
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NAME: OLYMPIA & YORK PROPERTIES
ADDRESS: 200 LIBERTY ST
NEW YORK NY 10281
NEW YORK
CONTACT: SHERR BENJAMIN

REV:
ID1: NYD173744400
ID2:
STATUS: LGN
PHONE: 2129453388

ADDRESS: NOT REQUIRED
NOT REQUIRED WY 99999

NOTIFIED:
PART A:

ACTIVITIES: LG: GENERATES MORE THAN 1000 KG/MONTH OF HAZARDOUS WASTE

CM+E LIST:
RAATS:

VIOL DATE:
ACTION DATE:

AGENCY:
DOCKET:

UPDATED: 11-10-98
UPDATED:

VIOL:
NUM:
ENF:
DATE:

ASSESS:

SETTLE:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 153 **DIST/DIR:** 0.07 NW **MAP ID:** 10

NAME: WFC TOWER A CO., L.P. ADDRESS: 200 LIBERTY AVENUE NEW YORK NY 10281 CONTACT: MARK VILLARI	REV: 07/01/00 ID1: PBS2-601830 ID2: STATUS: ACTIVE PBS FACILITY PHONE: (212) 417-7078
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PETROLEUM BULK STORAGE FACILITY INFORMATION

TYPE OF SITE:	OTHER		
TOTAL ACTIVE TANKS ON SITE:	1		
TOTAL FACILITY CAPACITY:	2000 GALLONS		
OLD PBS NUMBER:		CBS NUMBER:	SPDES NUMBER:
ADDITIONAL ADDRESS INFO:	A TOWER		
TYPE OF OWNER:	CORPORATE/COMMERCIAL		
OWNER SUB TYPE:			
OWNER ADDRESS:	200 LIBERTY STREET - A TOWER NEW YORK .Y 10281		
PHONE:	(212) 945-3388		
EMERGENCY CONTACT:	MARK VILLARI		
HONE:	(212) 417-7078		

MAILING NAME:	BROOKFIELD FINANCIAL PROPERTIES, INC.
ADDRESS:	ONE LIBERTY PLAZA NEW YORK NY 10006
ATTENTION:	MR. MARK VILLARI
PHONE:	(212) 417-7078

CERTIFICATE DATE:	6/11/99	EXP. DATE:	4/28/04
RENEWAL DATE:			

TANK INFORMATION

TANK NUMBER:	001	TANK STATUS:	IN SERVICE
INSTALLED:	6/1/85	CLOSED:	
TANK CAPACITY:	2000 GALLONS		
PRODUCT:	# 1, 2, OR 4 FUEL OIL		
TANK TYPE:	STEEL/CARBON STEEL		
TANK LOCATION:	ABOVEGROUND ON SADDLES, LEGS, STILTS, RACK, OR CRADLE		
INTERNAL PROTECTION:	NONE		
EXTERNAL PROTECTION:	PAINTED/ASPHALT COATING		
PIPE TYPE:	STEEL/IRON		
PIPE LOCATION:	ABOVEGROUND/UNDERGROUND COMBINATION		
INTERNAL PROTECTION:	NONE		
EXTERNAL PROTECTION:	NONE		
SECONDARY CONTAINMENT:	51		
LEAK DETECTION:	4		
OVERFILL PROTECTION:	42		
DISPENSER:			

- Continued on next page -

***Environmental FirstSearch
Site Detail Report***

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 153	DIST/DIR: 0.07 NW	MAP ID: 10
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NAME: WFC TOWER A CO., L.P.
ADDRESS: 200 LIBERTY AVENUE
NEW YORK NY 10281

REV: 07/01/00
ID1: PBS2-601830
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 417-7078

CONTACT: MARK VILLARI

DATE TESTED:
NEXT TEST:
TEST METHOD:

***Environmental FirstSearch
Site Detail Report***

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

RCRA GENERATOR SITE

SEARCH ID: 19 **DIST/DIR:** 0.07 SE **MAP ID:** 17

NAME: CON EDISON - DEY STREET SERVICE
ADDRESS: 2 DEY ST
NEW YORK NY 10007
NEW YORK
CONTACT: KEEGAN ROBERT

REV:
ID1: NYD981566862
ID2:
STATUS: LGN
PHONE: 2124604833

ADDRESS: NOT REQUIRED
NOT REQUIRED WY 99999

NOTIFIED:
PART A:

ACTIVITIES: LG: GENERATES MORE THAN 1000 KG/MONTH OF HAZARDOUS WASTE

CM+E LIST: **VIOL DATE:** 02-15-95 **AGENCY:** S **UPDATED:** 11-10-98
RAATS: **ACTION DATE:** **DOCKET:** **UPDATED:**

VIOL: GER, GLB
NUM: 2
ENF:
DATE:

ASSESS:

SETTLE:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 155 **DIST/DIR:** 0.07 SE **MAP ID:** 114

NAME: WFP ONE LIBERTY PLAZA CO., L.P. ADDRESS: 165 BROADWAY NEW YORK NY 10006 CONTACT: MARK VILLARI	REV: 07/01/00 ID1: PBS2-601823 ID2: STATUS: ACTIVE PBS FACILITY PHONE: (212) 417-7078
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PETROLEUM BULK STORAGE FACILITY INFORMATION

TYPE OF SITE: OTHER
TOTAL ACTIVE TANKS ON SITE: 1
TOTAL FACILITY CAPACITY: 14000 GALLONS
OLD PBS NUMBER: **CBS NUMBER:** **SPDES NUMBER:**
ADDITIONAL ADDRESS INFO:

TYPE OF OWNER: CORPORATE/COMMERCIAL
OWNER SUB TYPE:
OWNER ADDRESS: 165 BROADWAY
NEW YORK NY 10006
PHONE: (212) 349-4690

EMERGENCY CONTACT: MARK VILLARI
PHONE: (212) 417-7078

MAILING NAME: BROOKFIELD FINANCIAL PROPERTIES, INC.
ADDRESS: ONE LIBERTY PLAZA
NEW YORK NY 10006
ATTENTION: MR. MARK VILLARI
PHONE: (212) 417-7078

CERTIFICATE DATE: 6/11/99 **EXP. DATE:** 4/28/04
RENEWAL DATE:

TANK INFORMATION

TANK NUMBER:	001	TANK STATUS:	IN SERVICE
INSTALLED:	8/1/92	CLOSED:	
TANK CAPACITY:	14000 GALLONS		
PRODUCT:	# 1, 2, OR 4 FUEL OIL		
TANK TYPE:	STEEL/CARBON STEEL		
TANK LOCATION:	ABOVEGROUND ON SADDLES, LEGS, STILTS, RACK, OR CRADLE		
INTERNAL PROTECTION:	NONE		
EXTERNAL PROTECTION:	PAINTED/ASPHALT COATING		
PIPE TYPE:	GALVANIZED STEEL		
PIPE LOCATION:	ABOVEGROUND/UNDERGROUND COMBINATION		
INTERNAL PROTECTION:	NONE		
EXTERNAL PROTECTION:	NONE		
SECONDARY CONTAINMENT:	51		
LEAK DETECTION:	04		
OVERFILL PROTECTION:	42		
DISPENSER:	0		

- Continued on next page -

***Environmental FirstSearch
Site Detail Report***

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 155 **DIST/DIR:** 0.07 SE **MAP ID:** 114

NAME: WFP ONE LIBERTY PLAZA CO., L.P.
ADDRESS: 165 BROADWAY
NEW YORK NY 10006

REV: 07/01/00
ID1: PBS2-601823
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 417-7078

CONTACT: MARK VILLARI

DATE TESTED:
NEXT TEST:
TEST METHOD:

TANK NUMBER:	002	TANK STATUS:	CLOSED - IN PLACE
INSTALLED:	4/1/95	CLOSED:	4/1/95
TANK CAPACITY:	2500 GALLONS		
PRODUCT:	# 1, 2, OR 4 FUEL OIL		

TANK TYPE:	STEEL/CARBON STEEL
TANK LOCATION:	UNDERGROUND, VAULTED, WITH ACCESS
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	PAINTED/ASPHALT COATING
PIPE TYPE:	GALVANIZED STEEL
PIPE LOCATION:	ABOVEGROUND/UNDERGROUND COMBINATION
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	NONE
SECONDARY CONTAINMENT:	15
LEAK DETECTION:	04
OVERFILL PROTECTION:	24
DISPENSER:	0
DATE TESTED:	
NEXT TEST:	
TEST METHOD:	

***Environmental FirstSearch
Site Detail Report***

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

FLOODPLAINS

SEARCH ID: 168

DIST/DIR: 0.07 SW

MAP ID: 123

NAME: FEMA FLOOD PLAIN
ADDRESS:

REV:
ID1: 1168
ID2: 1193
STATUS: 500 YEAR
PHONE:

CONTACT:

AREA: 2.92708e-008
PERIMETER: 0.000827127
FIPS: 36061
COMMUNITY: 0497
FIRM PANEL: 3604970054B
QUAD: 40074-F1
FLOODWAY:
COBRA: COBRA_OUT
SFHA: OUT
SYMBOL: 11
PANEL TYPE: CBPP
STATE FIPS: 36
COUNTY FIPS: 061
COMM: 0497
PANEL: 0054B
QUAD UNIT: F1

***Environmental FirstSearch
Site Detail Report***

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

RCRA GENERATOR SITE

SEARCH ID: 35	DIST/DIR: 0.08 NE	MAP ID: 32
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NAME: MORGAN GUARANTY TRUST CO
ADDRESS: 55 EXCHANGE PL
NEW YORK NY 10260
NEW YORK
CONTACT: BERTONE SAMUEL

REV:
ID1: NYD137968756
ID2:
STATUS: LGN
PHONE: 7185876558

ADDRESS: NOT REQUIRED
NOT REQUIRED WY 99999

NOTIFIED:
PART A:

ACTIVITIES: LG: GENERATES MORE THAN 1000 KG/MONTH OF HAZARDOUS WASTE

CM+E LIST:
RAATS:

VIOL DATE:
ACTION DATE:

AGENCY:
DOCKET:

UPDATED: 11-10-98
UPDATED:

VIOL:
NUM:
ENF:
DATE:

ASSESS:

SETTLE:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 96 **DIST/DIR:** 0.08 SE **MAP ID:** 73

NAME: 160 BROADWAY ADDRESS: 160 BROADWAY NEW YORK NY 10038 CONTACT: CHARLIE NALAMA	REV: 07/01/00 ID1: PBS2-253863 ID2: STATUS: ACTIVE PBS FACILITY PHONE: (212) 227-5760
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PETROLEUM BULK STORAGE FACILITY INFORMATION

TYPE OF SITE:	OTHER		
TOTAL ACTIVE TANKS ON SITE:	1		
TOTAL FACILITY CAPACITY:	5000 GALLONS		
OLD PBS NUMBER:		CBS NUMBER:	SPDES NUMBER:
ADDITIONAL ADDRESS INFO:	160 BROADWAY		

TYPE OF OWNER:	CORPORATE/COMMERCIAL
OWNER SUB TYPE:	
OWNER ADDRESS:	160 BROADWAY SUITE 1200 NEW YORK NY 10038
PHONE:	(212) 349-2154

EMERGENCY CONTACT:	ABRAHAM TESSER
PHONE:	(212) 349-2154

MAILING NAME:	DAROR ASSOC
ADDRESS:	160 BROADWAY SUITE 100 NEW YORK NY 10038
ATTENTION:	ABRAHAM TESSER
PHONE:	(212) 349-2154

CERTIFICATE DATE:	7/24/97	EXP. DATE:	7/14/02
RENEWAL DATE:	6/13/97		

TANK INFORMATION

TANK NUMBER:	001	TANK STATUS:	IN SERVICE
INSTALLED:		CLOSED:	
TANK CAPACITY:	5000 GALLONS		
PRODUCT:	# 5 OR 6 FUEL OIL		

TANK TYPE:	STEEL/CARBON STEEL
TANK LOCATION:	UNDERGROUND, VAULTED, WITH ACCESS
INTERNAL PROTECTION:	
EXTERNAL PROTECTION:	
PIPE TYPE:	STEEL/IRON
PIPE LOCATION:	
INTERNAL PROTECTION:	
EXTERNAL PROTECTION:	
SECONDARY CONTAINMENT:	NONE
LEAK DETECTION:	NONE
OVERFILL PROTECTION:	PRODUCT LEVEL GAUGE
DISPENSER:	SUCTION

- Continued on next page -

***Environmental FirstSearch
Site Detail Report***

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 96	DIST/DIR: 0.08 SE	MAP ID: 73
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NAME: 160 BROADWAY
ADDRESS: 160 BROADWAY
NEW YORK NY 10038

REV: 07/01/00
ID1: PBS2-253863
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 227-5760

CONTACT: CHARLIE NALAMA

DATE TESTED:
NEXT TEST:
TEST METHOD:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 97 **DIST/DIR:** 0.08 SE **MAP ID:** 74

NAME: 170 BROADWAY
ADDRESS: 170 BROADWAY
NY NY 10038

REV: 07/01/00
ID1: PBS2-338761
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 962-2118

CONTACT: MARITIME REALTY CORP

PETROLEUM BULK STORAGE FACILITY INFORMATION

TYPE OF SITE: OTHER

TOTAL ACTIVE TANKS ON SITE: 1

TOTAL FACILITY CAPACITY: 7500 GALLONS

OLD PBS NUMBER:

CBS NUMBER:

SPDES NUMBER:

ADDITIONAL ADDRESS INFO: 170 BROADWAY

TYPE OF OWNER: CORPORATE/COMMERCIAL

OWNER SUB TYPE:

OWNER ADDRESS: 170 BROADWAY
NY NY 10038

PHONE: (212) 962-2116

EMERGENCY CONTACT: JOHN GALINDO
HONE: (718) 876-8365

MAILING NAME: ASTIR PROPERTY HOLDINGS NV
ADDRESS: 170 BROADWAY
NY NY 10038
ATTENTION: JOHN GALINDO
PHONE: (212) 962-2116

CERTIFICATE DATE: 2/19/98 **EXP. DATE:** 2/3/03
RENEWAL DATE: 12/1/97

TANK INFORMATION

TANK NUMBER: 001 **TANK STATUS:** IN SERVICE
INSTALLED: **CLOSED:**
TANK CAPACITY: 7500 GALLONS
PRODUCT: # 5 OR 6 FUEL OIL

TANK TYPE: STEEL/CARBON STEEL
TANK LOCATION: UNDERGROUND, VAULTED, WITH ACCESS
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: NONE
PIPE TYPE: STEEL/IRON
PIPE LOCATION: NONE
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: WRAPPED (PIPING)
SECONDARY CONTAINMENT: VAULT
LEAK DETECTION: NONE
OVERFILL PROTECTION: PRODUCT LEVEL GAUGE
DISPENSER: SUCTION

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS			
SEARCH ID: 97	DIST/DIR: 0.08 SE	MAP ID: 74	
NAME: 170 BROADWAY	REV: 07/01/00		
ADDRESS: 170 BROADWAY	ID1: PBS2-338761		
NY NY 10038	ID2:		
	STATUS: ACTIVE PBS FACILITY		
CONTACT: MARITIME REALTY CORP	PHONE: (212) 962-2118		
DATE TESTED:			
NEXT TEST:			
TEST METHOD:			

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 99 **DIST/DIR:** 0.08 SE **MAP ID:** 76

NAME: 195 PROPERTY ASSOCIATION ADDRESS: 195 BROADWAY NEW YORK NY 10007 CONTACT: MICHEAL COPPOLA	REV: 07/01/00 ID1: PBS2-044490 ID2: STATUS: UNREGULATED BY PBS PHONE: (212) 964-4445
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PETROLEUM BULK STORAGE FACILITY INFORMATION

TYPE OF SITE:	OTHER		
TOTAL ACTIVE TANKS ON SITE:	0		
TOTAL FACILITY CAPACITY:	0 GALLONS		
OLD PBS NUMBER:		CBS NUMBER:	SPDES NUMBER:
ADDITIONAL ADDRESS INFO:	195 BROADWAY		

TYPE OF OWNER:	CORPORATE/COMMERCIAL
OWNER SUB TYPE:	
OWNER ADDRESS:	101 PARK AVE NEW YORK NY 10000
PHONE:	(212) 808-7000

EMERGENCY CONTACT:	MICHEAL COPPOLA
PHONE:	(718) 326-1698

MAILING NAME:	195 PROPERTY COMPANY
ADDRESS:	195 BROADWAY NEW YORK NY 10007
ATTENTION:	MICHAEL COPPOLA, DIRECTOR
PHONE:	(212) 964-4445

CERTIFICATE DATE:	11/29/93	EXP. DATE:	12/30/96
RENEWAL DATE:	9/29/92		

TANK INFORMATION

TANK NUMBER:	001	TANK STATUS:	CLOSED - IN PLACE
INSTALLED:	12/1/49	CLOSED:	11/1/93
TANK CAPACITY:	9553 GALLONS		
PRODUCT:	# 5 OR 6 FUEL OIL		

TANK TYPE:	STEEL/CARBON STEEL
TANK LOCATION:	UNDERGROUND, VAULTED, WITH ACCESS
INTERNAL PROTECTION:	
EXTERNAL PROTECTION:	
PIPE TYPE:	STEEL/IRON
PIPE LOCATION:	
INTERNAL PROTECTION:	
EXTERNAL PROTECTION:	
SECONDARY CONTAINMENT:	VAULT
LEAK DETECTION:	NONE
OVERFILL PROTECTION:	
DISPENSER:	GRAVITY

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 99 **DIST/DIR:** 0.08 SE **MAP ID:** 76

NAME: 195 PROPERTY ASSOCIATION
ADDRESS: 195 BROADWAY
NEW YORK NY 10007

REV: 07/01/00
ID1: PBS2-044490
ID2:
STATUS: UNREGULATED BY PBS
PHONE: (212) 964-4445

CONTACT: MICHEAL COPPOLA

DATE TESTED:
NEXT TEST:
TEST METHOD:

TANK NUMBER:	002	TANK STATUS:	CLOSED - IN PLACE
INSTALLED:	12/1/49	CLOSED:	11/1/93
TANK CAPACITY:	15000 GALLONS		
PRODUCT:	# 5 OR 6 FUEL OIL		

TANK TYPE: STEEL/CARBON STEEL
TANK LOCATION: UNDERGROUND, VAULTED, WITH ACCESS

INTERNAL PROTECTION:
EXTERNAL PROTECTION:
PIPE TYPE: STEEL/IRON

PIPE LOCATION:

INTERNAL PROTECTION:

EXTERNAL PROTECTION:

SECONDARY CONTAINMENT: VAULT

LEAK DETECTION: NONE

OVERFILL PROTECTION:

DISPENSER: GRAVITY

DATE TESTED:

NEXT TEST:

TEST METHOD:

TANK NUMBER:	003	TANK STATUS:	CLOSED - IN PLACE
INSTALLED:	12/1/49	CLOSED:	11/1/93
TANK CAPACITY:	15000 GALLONS		
PRODUCT:	# 5 OR 6 FUEL OIL		

TANK TYPE: STEEL/CARBON STEEL
TANK LOCATION: UNDERGROUND, VAULTED, WITH ACCESS

INTERNAL PROTECTION:
EXTERNAL PROTECTION:
PIPE TYPE: STEEL/IRON

PIPE LOCATION:

INTERNAL PROTECTION:

EXTERNAL PROTECTION:

SECONDARY CONTAINMENT: VAULT

LEAK DETECTION: NONE

OVERFILL PROTECTION:

DISPENSER: GRAVITY

DATE TESTED:

NEXT TEST:

TEST METHOD:

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 99 **DIST/DIR:** 0.08 SE **MAP ID:** 76

NAME: 195 PROPERTY ASSOCIATION
ADDRESS: 195 BROADWAY
NEW YORK NY 10007

REV: 07/01/00
ID1: PBS2-044490
ID2:
STATUS: UNREGULATED BY PBS
PHONE: (212) 964-4445

CONTACT: MICHEAL COPPOLA

TANK NUMBER: 004 **TANK STATUS:** CLOSED - IN PLACE
INSTALLED: 12/1/49 **CLOSED:** 11/1/93
TANK CAPACITY: 15000 GALLONS
PRODUCT: # 5 OR 6 FUEL OIL

TANK TYPE: STEEL/CARBON STEEL
TANK LOCATION: UNDERGROUND, VAULTED, WITH ACCESS

INTERNAL PROTECTION:
EXTERNAL PROTECTION:

PIPE TYPE: STEEL/IRON

PIPE LOCATION:

INTERNAL PROTECTION:

EXTERNAL PROTECTION:

SECONDARY CONTAINMENT: VAULT

LEAK DETECTION: NONE

OVERFILL PROTECTION:

DISPENSER: GRAVITY

DATE TESTED:

NEXT TEST:

TEST METHOD:

TANK NUMBER: 005 **TANK STATUS:** CLOSED - IN PLACE
INSTALLED: 12/1/49 **CLOSED:** 11/1/93
TANK CAPACITY: 19028 GALLONS
PRODUCT: # 5 OR 6 FUEL OIL

TANK TYPE: STEEL/CARBON STEEL
TANK LOCATION: UNDERGROUND, VAULTED, WITH ACCESS

INTERNAL PROTECTION:
EXTERNAL PROTECTION:

PIPE TYPE: STEEL/IRON

PIPE LOCATION:

INTERNAL PROTECTION:

EXTERNAL PROTECTION:

SECONDARY CONTAINMENT: VAULT

LEAK DETECTION: NONE

OVERFILL PROTECTION: PRODUCT LEVEL GAUGE

DISPENSER: SUCTION

DATE TESTED:

NEXT TEST:

TEST METHOD:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 89 **DIST/DIR:** 0.08 SW **MAP ID:** 68

NAME: 120 GREENWICH ST ADDRESS: 120 GREENWICH ST NEW YORK NY 10006	REV: 07/01/00 ID1: PBS2-282014 ID2: STATUS: ACTIVE PBS FACILITY PHONE: (212) 406-1581
CONTACT: CARLYLE RECORD WAREHOUSE CORP	

PETROLEUM BULK STORAGE FACILITY INFORMATION

TYPE OF SITE:	OTHER		
TOTAL ACTIVE TANKS ON SITE:	1		
TOTAL FACILITY CAPACITY:	7500 GALLONS		
OLD PBS NUMBER:		CBS NUMBER:	SPDES NUMBER:
ADDITIONAL ADDRESS INFO:	120 GREENWICH ST		
TYPE OF OWNER:	CORPORATE/COMMERCIAL		
OWNER SUB TYPE:			
OWNER ADDRESS:	653 11TH AVENUE NEW YORK NY 10036		
PHONE:	(212) 977-4900		
EMERGENCY CONTACT:	RAJAN ANTHONY PILLAI		
PHONE:	(212) 977-4900		

MAILING NAME:	CARLYLE RECORD WAREHOUSES CORP
ADDRESS:	653 11TH AVENUE NEW YORK NY 10036
ATTENTION:	STEVEN J. FUCHES
PHONE:	(212) 977-4900

CERTIFICATE DATE: 7/11/97	EXP. DATE: 7/14/02	
RENEWAL DATE: 6/16/97		

TANK INFORMATION

TANK NUMBER:	001	TANK STATUS:	IN SERVICE
INSTALLED:	4/1/78	CLOSED:	
TANK CAPACITY:	7500 GALLONS		
PRODUCT:	# 1, 2, OR 4 FUEL OIL		
TANK TYPE:	STEEL/CARBON STEEL		
TANK LOCATION:	ABOVEGROUND		
INTERNAL PROTECTION:			
EXTERNAL PROTECTION:	PAINTED/ASPHALT COATING		
PIPE TYPE:	STEEL/IRON		
PIPE LOCATION:	ABOVE GROUND		
INTERNAL PROTECTION:			
EXTERNAL PROTECTION:	PAINTED/ASPHALT COATING		
SECONDARY CONTAINMENT:	VAULT		
LEAK DETECTION:	NONE		
OVERFILL PROTECTION:	PRODUCT LEVEL GAUGE		
DISPENSER:	SUCTION		

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS			
SEARCH ID:	89	DIST/DIR:	0.08 SW
		MAP ID:	68
NAME:	120 GREENWICH ST	REV:	07/01/00
ADDRESS:	120 GREENWICH ST	ID1:	PBS2-282014
	NEW YORK NY 10006	ID2:	
CONTACT:	CARLYLE RECORD WAREHOUSE CORP	STATUS:	ACTIVE PBS FACILITY
		PHONE:	(212) 406-1581
DATE TESTED:			
NEXT TEST:			
TEST METHOD:			

***Environmental FirstSearch
Site Detail Report***

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 150	DIST/DIR: 0.08 SW	MAP ID: 111
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NAME: THE BANKER S TRUST COMPANY
ADDRESS: 4 ALBANY STREET
NEW YORK NY 10006

REV: 07/01/00
ID1: PBS2-602072
ID2:
STATUS: UNREGULATED BY PBS
PHONE: (212) 250-6555

CONTACT: RICHARD NEGRON

DATE TESTED:
NEXT TEST:
TEST METHOD:

Environmental FirstSearch Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

EMERGENCY RESPONSE NOTIFICATION SITE

SEARCH ID: 80 **DIST/DIR:** 0.09 SE **MAP ID:** 62

NAME:		REV:	
ADDRESS:	180 BROADWAY - 12TH FLOOR UNISEX LAVATORY NEW YORK NY 10038	ID1:	287859
		ID2:	
		STATUS:	UNKNOWN
CONTACT:		PHONE:	

CERCLIS (Y/N):

MAT: METHANE **QUANT:** 0 UNKNOWN

LOCATION: 180 BROADWAY - 12TH FLOOR UNISEX LAVATORY
CITY: **REPORTED:** 09/24/92

SOURCE: UNKNOWN **MEDIUM:** AIR
12TH FLOOR LAVATORY HAS STRONG METHANE SMELL 12TH FLOOR UNISEX LAVATORY HAS S
CAUSE: UNKNOWN
TRONG SMELL OF METHANE.

ACT: NONE. COMPANY HAS NOTIFIED THE BUILDING MANAGERS AND THEY HAVE D
RY:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 98 **DIST/DIR:** 0.09 SE **MAP ID:** 75

NAME: 176 BWAY OWNERS ADDRESS: 176 BROADWAY NY NY 10038 CONTACT: SEMEN REYSER	REV: 07/01/00 ID1: PBS2-207217 ID2: STATUS: ACTIVE PBS FACILITY PHONE: (212) 227-8630
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PETROLEUM BULK STORAGE FACILITY INFORMATION

TYPE OF SITE: APARTMENT BUILDING
TOTAL ACTIVE TANKS ON SITE: 1
TOTAL FACILITY CAPACITY: 7500 GALLONS
OLD PBS NUMBER: **CBS NUMBER:** **SPDES NUMBER:**
ADDITIONAL ADDRESS INFO: 176 BROADWAY

TYPE OF OWNER:
OWNER SUB TYPE:
OWNER ADDRESS: 176 BROADWAY
NEW YORK NY 10038
PHONE: (212) 227-8630

EMERGENCY CONTACT: SEMEN REYSER
PHONE: (212) 227-8630

MAILING NAME: 176 BROADWAY OWNERS
ADDRESS: 176 BROADWAY
NEW YORK NY 10038
ATTENTION: SEMEN REYSOR
PHONE: (212) 370-1480

CERTIFICATE DATE: 11/24/97 **EXP. DATE:** 1/7/03
RENEWAL DATE: 11/4/97

TANK INFORMATION

TANK NUMBER: 001 INSTALLED: TANK CAPACITY: 7500 GALLONS PRODUCT: # 5 OR 6 FUEL OIL	TANK STATUS: IN SERVICE CLOSED:
TANK TYPE: STEEL/CARBON STEEL TANK LOCATION: UNDERGROUND INTERNAL PROTECTION: EXTERNAL PROTECTION: PIPE TYPE: STEEL/IRON PIPE LOCATION: INTERNAL PROTECTION: EXTERNAL PROTECTION: SECONDARY CONTAINMENT: NONE LEAK DETECTION: NONE OVERFILL PROTECTION: PRODUCT LEVEL GAUGE DISPENSER: SUCTION	

- Continued on next page -

***Environmental FirstSearch
Site Detail Report***

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 98 **DIST/DIR:** 0.09 SE **MAP ID:** 75

NAME: 176 BWAY OWNERS
ADDRESS: 176 BROADWAY
NY NY 10038

REV: 07/01/00
ID1: PBS2-207217
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 227-8630

CONTACT: SEMEN REYSER

DATE TESTED:
NEXT TEST:
TEST METHOD:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 120 **DIST/DIR:** 0.09 SE **MAP ID:** 88

NAME: COMMERCIAL OFFICE BUILDING
ADDRESS: 120 BROADWAY
NEW YORK NY 10271

CONTACT: JAMES HALPIN

REV: 07/01/00
ID1: PBS2-604466
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 406-4020

PETROLEUM BULK STORAGE FACILITY INFORMATION

TYPE OF SITE: OTHER

TOTAL ACTIVE TANKS ON SITE: 3

TOTAL FACILITY CAPACITY: 2375 GALLONS

OLD PBS NUMBER:

CBS NUMBER:

SPDES NUMBER:

ADDITIONAL ADDRESS INFO:

TYPE OF OWNER: CORPORATE/COMMERCIAL

OWNER SUB TYPE:

OWNER ADDRESS: 120 BROADWAY
NEW YORK NY 10271

PHONE: (212) 406-4020

EMERGENCY CONTACT: JAMES HALPIN

PHONE: (212) 406-4020

MAILING NAME: SILVERSTEIN PROPERTIES
ADDRESS: 120 BROADWAY, ROOM 3663
NEW YORK NY 10271

ATTENTION: JAMES HALPIN
PHONE: (212) 406-4020

CERTIFICATE DATE: 4/3/00 **EXP. DATE:** 3/28/05
RENEWAL DATE:

TANK INFORMATION

TANK NUMBER: 001 **TANK STATUS:** IN SERVICE
INSTALLED: **CLOSED:**
TANK CAPACITY: 100 GALLONS
PRODUCT: # 1, 2, OR 4 FUEL OIL

TANK TYPE: STEEL/CARBON STEEL
TANK LOCATION: ABOVEGROUND ON SADDLES, LEGS, STILTS, RACK, OR CRADLE
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: PAINTED/ASPHALT COATING
PIPE TYPE: STEEL/IRON
PIPE LOCATION: ABOVE GROUND
INTERNAL PROTECTION: NONE
EXTERNAL PROTECTION: NONE
SECONDARY CONTAINMENT: 01
LEAK DETECTION: 01
OVERFILL PROTECTION: HIGH LEVEL ALARM
DISPENSER: SUCTION

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 120 **DIST/DIR:** 0.09 SE **MAP ID:** 88

NAME: COMMERCIAL OFFICE BUILDING
ADDRESS: 120 BOADWAY
NEW YORK NY 10271

REV: 07/01/00
ID1: PBS2-604466
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 406-4020

CONTACT: JAMES HALPIN

DATE TESTED:
NEXT TEST:
TEST METHOD:

TANK NUMBER:	002	TANK STATUS:	IN SERVICE
INSTALLED:	1/1/95	CLOSED:	
TANK CAPACITY:	275 GALLONS		
PRODUCT:	DIESEL		

TANK TYPE:	STEEL/CARBON STEEL
TANK LOCATION:	ABOVEGROUND ON SADDLES, LEGS, STILTS, RACK, OR CRADLE
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	PAINTED/ASPHALT COATING
PIPE TYPE:	STEEL/IRON
PIPE LOCATION:	ABOVE GROUND
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	NONE
SECONDARY CONTAINMENT:	01
LEAK DETECTION:	01
OVERFILL PROTECTION:	HIGH LEVEL ALARM
DISPENSER:	SUCTION

DATE TESTED:
NEXT TEST:
TEST METHOD:

TANK NUMBER:	003	TANK STATUS:	IN SERVICE
INSTALLED:	1/1/95	CLOSED:	
TANK CAPACITY:	2000 GALLONS		
PRODUCT:	DIESEL		

TANK TYPE:	STEEL/CARBON STEEL
TANK LOCATION:	ABOVEGROUND ON SADDLES, LEGS, STILTS, RACK, OR CRADLE
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	PAINTED/ASPHALT COATING
PIPE TYPE:	STEEL/IRON
PIPE LOCATION:	ABOVE GROUND
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	NONE
SECONDARY CONTAINMENT:	01
LEAK DETECTION:	01
OVERFILL PROTECTION:	HIGH LEVEL ALARM
DISPENSER:	SUCTION

DATE TESTED:
NEXT TEST:
TEST METHOD:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 137 **DIST/DIR:** 0.09 SE **MAP ID:** 102

NAME: MINISTER,ELDERS & DEACONS ADDRESS: 198 BROADWAY NY NY 10038 CONTACT: MINISTER,ELDERS & DEACONS	REV: 07/01/00 ID1: PBS2-305693 ID2: STATUS: ACTIVE PBS FACILITY PHONE: (212) 233-1960
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PETROLEUM BULK STORAGE FACILITY INFORMATION

TYPE OF SITE: UTILITY TOTAL ACTIVE TANKS ON SITE: 1 TOTAL FACILITY CAPACITY: 4000 GALLONS OLD PBS NUMBER: CBS NUMBER: ADDITIONAL ADDRESS INFO: 198 BROADWAY	SPDES NUMBER:
TYPE OF OWNER: CORPORATE/COMMERCIAL OWNER SUB TYPE: OWNER ADDRESS: 45 JOHN ST RM 804 NY NY 10038 PHONE: (212) 233-1960	
EMERGENCY CONTACT: KEN SHAFFER PHONE: (212) 233-1960	

MAILING NAME: MINISTER,ELDERS & DEACONS ADDRESS: 45 JOHN ST RM 804 NY NY 10038 ATTENTION: ANTHONY BRUMMANS PHONE: (212) 233-1960	
--	--

CERTIFICATE DATE: 7/8/97	EXP. DATE: 7/14/02	
RENEWAL DATE: 6/16/97		

TANK INFORMATION

TANK NUMBER: 001	TANK STATUS: IN SERVICE	
INSTALLED:	CLOSED:	
TANK CAPACITY: 4000 GALLONS		
PRODUCT: # 1, 2, OR 4 FUEL OIL		
TANK TYPE: STEEL/CARBON STEEL		
TANK LOCATION: UNDERGROUND, VAULTED, WITH ACCESS		
INTERNAL PROTECTION:		
EXTERNAL PROTECTION:		
PIPE TYPE: STEEL/IRON		
PIPE LOCATION:		
INTERNAL PROTECTION:		
EXTERNAL PROTECTION:		
SECONDARY CONTAINMENT: VAULT		
LEAK DETECTION: NONE		
OVERFILL PROTECTION: PRODUCT LEVEL GAUGE		
DISPENSER: SUBMERSIBLE		

- Continued on next page -

***Environmental FirstSearch
Site Detail Report***

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 137

DIST/DIR: 0.09 SE

MAP ID: 102

NAME: MINISTER,ELDERS & DEACONS
ADDRESS: 198 BROADWAY
NY NY 10038

REV: 07/01/00
ID1: PBS2-305693
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 233-1960

CONTACT: MINISTER,ELDERS & DEACONS

DATE TESTED:

NEXT TEST:

TEST METHOD:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 106 **DIST/DIR:** 0.10 NE **MAP ID:** 82

NAME: 53 PARK PLACE ADDRESS: 53 PARK PL NY NY 10007	REV: 07/01/00 ID1: PBS2-192392 ID2: STATUS: ACTIVE PBS FACILITY PHONE: (212) 227-4955
CONTACT: ALBERT BONILLA SUPT C/O W M C	

PETROLEUM BULK STORAGE FACILITY INFORMATION

TYPE OF SITE:

TOTAL ACTIVE TANKS ON SITE: 1

TOTAL FACILITY CAPACITY: 9000 GALLONS

OLD PBS NUMBER:

CBS NUMBER:

SPDES NUMBER:

ADDITIONAL ADDRESS INFO: 53 PARK PL

TYPE OF OWNER: CORPORATE/COMMERCIAL

OWNER SUB TYPE:

OWNER ADDRESS: 641 LEXINTON AVE
NY NY 10022

PHONE: (212) 935-5252

EMERGENCY CONTACT: DENIS MUZIO C/O W MGMT CORP
PHONE: (212) 935-5252

MAILING NAME: 53 PK PL RLTY CO C/O W MGMT CO
ADDRESS: 384 5TH AVE, 6TH FLOOR
NY NY 10018
ATTENTION: BONNIE
PHONE: (212) 935-5252

CERTIFICATE DATE: 1/9/95 **EXP. DATE:** 7/7/97
RENEWAL DATE: 6/11/97

TANK INFORMATION

TANK NUMBER: 001	TANK STATUS: IN SERVICE
INSTALLED: 12/1/83	CLOSED:
TANK CAPACITY: 9000 GALLONS	
PRODUCT: # 5 OR 6 FUEL OIL	

TANK TYPE: STEEL/CARBON STEEL
TANK LOCATION: ABOVEGROUND ON SADDLES, LEGS, STILTS, RACK, OR CRADLE
INTERNAL PROTECTION:
EXTERNAL PROTECTION:
PIPE TYPE: GALVANIZED STEEL
PIPE LOCATION:
INTERNAL PROTECTION:
EXTERNAL PROTECTION:
SECONDARY CONTAINMENT: VAULT
LEAK DETECTION: NONE
OVERFILL PROTECTION: PRODUCT LEVEL GAUGE
DISPENSER: SUCTION

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS			
SEARCH ID: 106	DIST/DIR: 0.10 NE	MAP ID: 82	
NAME: 53 PARK PLACE	REV: 07/01/00		
ADDRESS: 53 PARK PL	ID1: PBS2-192392		
NY NY 10007	ID2:		
	STATUS: ACTIVE PBS FACILITY		
CONTACT: ALBERT BONILLA SUPT C/O W M C	PHONE: (212) 227-4955		
DATE TESTED:			
NEXT TEST:			
TEST METHOD:			

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 107 **DIST/DIR:** 0.10 NE **MAP ID:** 18

NAME: 75 PARK PLACE ADDRESS: 75 PARK PLACE NEW YORK NY 10007 CONTACT: MICHAEL MARTIN	REV: 07/01/00 ID1: PBS2-601237 ID2: STATUS: ACTIVE PBS FACILITY PHONE: (212) 608-5827
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PETROLEUM BULK STORAGE FACILITY INFORMATION

TYPE OF SITE:	OTHER		
TOTAL ACTIVE TANKS ON SITE:	2		
TOTAL FACILITY CAPACITY:	5275 GALLONS		
OLD PBS NUMBER:		CBS NUMBER:	SPDES NUMBER:
ADDITIONAL ADDRESS INFO:	75 PARK PLACE		

TYPE OF OWNER:	CORPORATE/COMMERCIAL
OWNER SUB TYPE:	
OWNER ADDRESS:	110 EAST 59 STREET NEW YORK NY 10022
PHONE:	(212) 421-1300

EMERGENCY CONTACT:	MICHAEL MARTIN
PHONE:	(516) 754-1553

MAILING NAME:	RESNICK MURRY ST. ASSOCIATES
ADDRESS:	110 EAST 59 STREET NEW YORK NY 10022
ATTENTION:	JOHN T. PAVONE
PHONE:	(212) 421-1300

CERTIFICATE DATE:	9/26/97	EXP. DATE:	11/24/02
RENEWAL DATE:	9/2/97		

TANK INFORMATION

TANK NUMBER:	001	TANK STATUS:	IN SERVICE
INSTALLED:	11/1/86	CLOSED:	
TANK CAPACITY:	5000 GALLONS		
PRODUCT:	DIESEL		

TANK TYPE:	STEEL/CARBON STEEL
TANK LOCATION:	ABOVEGROUND
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	PAINTED/ASPHALT COATING
PIPE TYPE:	STEEL/IRON
PIPE LOCATION:	ABOVEGROUND/UNDERGROUND COMBINATION
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	PAINTED/ASPHALT COATING
SECONDARY CONTAINMENT:	04
LEAK DETECTION:	00
OVERFILL PROTECTION:	FLOAT VENT VALVE
DISPENSER:	SUCTION

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 107 **DIST/DIR:** 0.10 NE **MAP ID:** 18

NAME: 75 PARK PLACE
ADDRESS: 75 PARK PLACE
NEW YORK NY 10007

REV: 07/01/00
ID1: PBS2-601237
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 608-5827

CONTACT: MICHAEL MARTIN

DATE TESTED:
NEXT TEST:
TEST METHOD:

TANK NUMBER:	002	TANK STATUS:	IN SERVICE
INSTALLED:	11/1/86	CLOSED:	
TANK CAPACITY:	275 GALLONS		
PRODUCT:	DIESEL		

TANK TYPE:	STEEL/CARBON STEEL
TANK LOCATION:	ABOVEGROUND
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	PAINTED/ASPHALT COATING
PIPE TYPE:	STEEL/IRON
PIPE LOCATION:	ABOVE GROUND
INTERNAL PROTECTION:	NONE
EXTERNAL PROTECTION:	PAINTED/ASPHALT COATING
SECONDARY CONTAINMENT:	01
LEAK DETECTION:	09
OVERFILL PROTECTION:	AUTOMATIC SHUTOFF
DISPENSER:	SUCTION
DATE TESTED:	
NEXT TEST:	
TEST METHOD:	

Environmental FirstSearch Federal Databases and Sources

1. **NPL: National Priority List.** The EPA's list of confirmed or proposed Superfund sites.

Updated quarterly.

2. **CERCLIS: Comprehensive Environmental Response Compensation and Liability Information System.** The EPA's database of current and potential Superfund sites currently or previously under investigation.

Updated quarterly.

3. **RCRIS: Resource Conservation and Recovery Information System.** The EPA's database of registered hazardous waste generators and treatment, storage and disposal facilities. Included are RAATS (RCRA Administrative Action Tracking System) and CMEL (Compliance Monitoring & Enforcement List).

Updated quarterly.

4. **ERNS: Emergency Response Notification System.**
The EPA's database of EPA emergency response actions.

Updated quarterly.

5. **NPDES: National Pollution Discharge Elimination System.**
The EPA's database of all permitted facilities receiving and discharging effluents to and from the environment.

Updated semi-annually.

6. **FINDS: The Facility Index System.** The EPA's Index of identification numbers associated with a property or facility which the EPA has investigated or has been made aware of in conjunction with various regulatory programs. Each record indicates the EPA office that may have files on the site or facility.

Updated quarterly.

Environmental FirstSearch New York Databases and Sources

1. **State Sites:** The New York State Department of Environmental Conservation's Registry of Inactive Hazardous Waste Disposal Sites. The database contains information on all Class 1, Class 2, Class 2a, Class 3, Class 4, and Class 5 locations maintained by the Division of Hazardous Waste Remediation.

Updated quarterly.

The Hazardous Substance Waste Disposal Site Study list maintained by the New York State Department of Environmental Conservation is also included within the State Sites database.

Updated as available.

2. **Spills:** The New York State Department of Environmental Conservation's database of emergency response actions and spill releases maintained by the Division of Spills Management.

Updated quarterly.

3. **Landfills:** The New York State Department of Environmental Conservation's Active Facilities Registry maintained by the Division of Solid and Hazardous Materials.

Updated annually.

4. **UST:** The New York State Department of Environmental Conservation's database of Petroleum Bulk Storage (PBS) facilities, Major Oil Storage Facilities (MOSF), and Chemical Bulk Storage (CBS) facilities maintained by the Division of Spills Management and delegated Counties (Nassau, Suffolk, Rockland, and Cortland Counties).

Updated quarterly.

5. **PWS:** The State of New York Department of Health database of Public Water Supply (PWS) wells maintained by the Bureau of Public Water Supply.

Updated annually.

6. **LUST:** The New York State Department of Environmental Conservation's database of Leaking Underground Storage Tanks (LUSTs) maintained by the Division of Spills Management. The database is derived from the Spills database.

Updated quarterly.

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

RCRA GENERATOR SITE

SEARCH ID: 20 **DIST/DIR:** 0.10 NE **MAP ID:** 18

NAME: CONTRACT APPLICATIONS INC
ADDRESS: 75 PARK PL
NEW YORK NY 10001

REV:
ID1: NYD982275869
ID2:
STATUS: SGN
PHONE: 7183417563

CONTACT: FRVE JOHN

ADDRESS: NOT REQUIRED
NOT REQUIRED WY 99999

NOTIFIED:
PART A:

ACTIVITIES: LG: GENERATES MORE THAN 1000 KG/MONTH OF HAZARDOUS WASTE

CM+E LIST:
RAATS:

VIOL DATE:
ACTION DATE:

AGENCY:
DOCKET:

UPDATED: 11-10-98
UPDATED:

VIOL:
NUM:
ENF:
DATE:

ASSESS:

SETTLE:

RCRA GENERATOR SITE

SEARCH ID: 40 **DIST/DIR:** 0.10 NE **MAP ID:** 37

NAME: MTA NYCT - WORLD TRADE CENTER COMPLEX
ADDRESS: PARK PL & CHURCH ST
NEW YORK NY 10007

REV:
ID1: NYR000063792
ID2:
STATUS: LGN
PHONE: 2123076010

CONTACT: JEHLE WILLIAM

DETAILS NOT AVAILABLE

***Environmental FirstSearch
Site Detail Report***

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

RCRA GENERATOR SITE

SEARCH ID: 51 **DIST/DIR:** 0.10 NE **MAP ID:** 37

NAME: NYCTA - SPECIAL EQUIP LUBRICATION T&S
ADDRESS: 400 CHURCH ST & PARK PL
NEW YORK NY 10007
NEW YORK
CONTACT: WITTENBERG NANCY

REV:
ID1: NYD982739476
ID2:
STATUS: LGN
PHONE: 7183304891

ADDRESS: 370 JAY ST ROOM 809
BROOKLYN NY 11201

NOTIFIED:
PART A:

ACTIVITIES: LG: GENERATES MORE THAN 1000 KG/MONTH OF HAZARDOUS WASTE

CM+E LIST:
RAATS:

VIOL DATE:
ACTION DATE:

AGENCY:
DOCKET:

UPDATED: 11-10-98
UPDATED:

VIOL:
NUM:
ENF:
DATE:

ASSESS:

SETTLE:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 139 **DIST/DIR:** 0.10 NW **MAP ID:** 104

NAME: OLYMPIA AND YORK PROPERTIES ADDRESS: 4 WORLD FINANCIAL CENTER NEW YORK NY 10281 CONTACT: VINCENT A. DANIELE	REV: 07/01/00 ID1: CBS2-000267 ID2: STATUS: INACTIVE PHONE: (212) 945-3390
---	---

CHEMICAL BULK STORAGE FACILITY INFORMATION

TYPE OF SITE: PRIVATE RESIDENCE/APARTMENT BUILDING TOTAL ACTIVE TANKS ON SITE: 0 TOTAL FACILITY CAPACITY: 0 GALLONS PBS NUMBER: ADDITIONAL ADDRESS INFO: 250 VESEY STREET	ICS NUMBER: MOSF NUMBER:
--	---

TYPE OF OWNER: OWNER SUB TYPE: OWNER ADDRESS: PHONE:	CORPORATE/COMMERCIAL 4 WORLD FINANCIAL CENTER NEW YORK NY 10281 (212) 945-3390
---	---

EMERGENCY CONTACT: PHONE:	VINCENT A. DANIELE (212) 945-3390
--	--------------------------------------

MAILING NAME: ADDRESS: ATTENTION: PHONE:	OLYMPIA AND YORK PROPERTIES 4 WORLD FINANCIAL CENTER NEW YORK NY 10281 MR. VINCENT A. DANIELE (212) 945-3390
---	--

CERTIFICATE DATE: 5/13/94	EXP. DATE: 5/13/96	
RENEWAL DATE: 2/7/96		

TANK INFORMATION

TANK NUMBER: D001 INSTALLED: 00/84 TANK CAPACITY: 1100 GALLONS SUBSTANCE STORED: SODIUM HYPOCHLORITE SUBSTANCE DESCRIPTION: SINGLE HAZARDOUS SUBSTANCE ON DEC LIST HAZARDOUS SUBSTANCE %: 15	STATUS: TANK CONVERTED TO NON-REGULATED USE CLOSED: 03/96
---	--

TANK TYPE: TANK LOCATION: INTERNAL PROTECTION: EXTERNAL PROTECTION: SECONDARY CONTAINMENT:	STEEL/CARBON STEEL ABOVEGROUND ON SADDLES, LEGS, STILTS, RACK, OR CRADLE NONE NONE VAULT WITH ACCESS
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PIPE TYPE: PIPE LOCATION: INTERNAL PROTECTION:	6 ABOVEGROUND/UNDERGROUND COMBINATION NONE
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- Continued on next page -

***Environmental FirstSearch
Site Detail Report***

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 139

DIST/DIR: 0.10 NW

MAP ID: 104

NAME: OLYMPIA AND YORK PROPERTIES
ADDRESS: 4 WORLD FINANCIAL CENTER
NEW YORK NY 10281

REV: 07/01/00
ID1: CBS2-000267
ID2:
STATUS: INACTIVE
PHONE: (212) 945-3390

CONTACT: VINCENT A. DANIELE

EXTERNAL PROTECTION: NONE
SECONDARY CONTAINMENT: OTHER

LEAK DETECTION: 19
OVERFILL PROTECTION: 14

***Environmental FirstSearch
Site Detail Report***

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

RCRA GENERATOR SITE

SEARCH ID: 4 **DIST/DIR:** 0.10 SE **MAP ID:** 4

NAME: 222 BROADWAY LLC
ADDRESS: 222 BROADWAY
NEW YORK NY 10038

REV:
ID1: NYD982537052
ID2:
STATUS: LGN
PHONE: 2122360621

CONTACT: KOST EYLSE

ADDRESS: NOT REQUIRED
NOT REQUIRED WY 99999

NOTIFIED:
PART A:

ACTIVITIES: SG: GENERATES 100-1000 KG/MONTH OF HAZARDOUS WASTE

CM+E LIST:
RAATS:

VIOL DATE:
ACTION DATE:

AGENCY:
DOCKET:

UPDATED: 11-10-98
UPDATED:

VIOL:
NUM:
ENF:
DATE:

ASSESS:

SETTLE:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 101 **DIST/DIR:** 0.10 SE **MAP ID:** 4

NAME: 222 BROADWAY, LLC ADDRESS: 222 BROADWAY NEW YORK NY 10038 CONTACT: CULLIERS ABR. INC.	REV: 07/01/00 ID1: PBS2-452475 ID2: STATUS: ACTIVE PBS FACILITY PHONE: (212) 406-3312
---	--

PETROLEUM BULK STORAGE FACILITY INFORMATION

TYPE OF SITE:	OTHER		
TOTAL ACTIVE TANKS ON SITE:	2		
TOTAL FACILITY CAPACITY:	6000 GALLONS		
OLD PBS NUMBER:	CBS NUMBER:	SPDES NUMBER:	
ADDITIONAL ADDRESS INFO:	222 BROADWAY		
TYPE OF OWNER:	CORPORATE/COMMERCIAL		
OWNER SUB TYPE:			
OWNER ADDRESS:	222 BROADWAY NEW YORK NY 10038		
PHONE:	(212) 406-3312		
EMERGENCY CONTACT:	STEVE BURKE		
PHONE:	(212) 406-3312		

MAILING NAME:	COLLIERS ABR, INC.
ADDRESS:	222 BROADWAY NEW YORK NY 10038
ATTENTION:	STEVE BURKE
PHONE:	(212) 406-3312

CERTIFICATE DATE:	10/29/98	EXP. DATE:	10/8/03
RENEWAL DATE:	5/3/93		

TANK INFORMATION

TANK NUMBER:	001	TANK STATUS:	IN SERVICE
INSTALLED:	9/1/87	CLOSED:	
TANK CAPACITY:	3000 GALLONS		
PRODUCT:	# 1, 2, OR 4 FUEL OIL		
TANK TYPE:	STEEL/CARBON STEEL		
TANK LOCATION:	UNDERGROUND, VAULTED, WITH ACCESS		
INTERNAL PROTECTION:			
EXTERNAL PROTECTION:			
PIPE TYPE:			
PIPE LOCATION:			
INTERNAL PROTECTION:			
EXTERNAL PROTECTION:			
SECONDARY CONTAINMENT:			
LEAK DETECTION:			
OVERFILL PROTECTION:	PRODUCT LEVEL GAUGE		
DISPENSER:	SUCTION		

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 101 **DIST/DIR:** 0.10 SE **MAP ID:** 4

NAME: 222 BROADWAY, LLC
ADDRESS: 222 BROADWAY
NEW YORK NY 10038

REV: 07/01/00
ID1: PBS2-452475
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 406-3312

CONTACT: CULLIERS ABR. INC.

DATE TESTED: 7/1/98
NEXT TEST:
TEST METHOD: HORNER EZ CHECK

TANK NUMBER: 002 **TANK STATUS:** IN SERVICE
INSTALLED: 6/1/87 **CLOSED:**
TANK CAPACITY: 3000 GALLONS
PRODUCT: DIESEL

TANK TYPE: STEEL/CARBON STEEL
TANK LOCATION: UNDERGROUND

INTERNAL PROTECTION:
EXTERNAL PROTECTION:
PIPE TYPE:

PIPE LOCATION:

INTERNAL PROTECTION:

EXTERNAL PROTECTION:

SECONDARY CONTAINMENT: 08

LEAK DETECTION:

OVERFILL PROTECTION:

DISPENSER:

DATE TESTED: 7/1/98

NEXT TEST: 7/1/03

TEST METHOD: HORNER EZ CHECK

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 102 **DIST/DIR:** 0.10 SE **MAP ID:** 78

NAME: 225 BROADWAY
ADDRESS: 225 BROADWAY
NEW YORK NY 10007

REV: 07/01/00
ID1: PBS2-253162
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 227-8638

CONTACT: EDDIE FEMENELLA

PETROLEUM BULK STORAGE FACILITY INFORMATION

TYPE OF SITE: OTHER

TOTAL ACTIVE TANKS ON SITE: 1

TOTAL FACILITY CAPACITY: 20000 GALLONS

OLD PBS NUMBER: **CBS NUMBER:** **SPDES NUMBER:**

ADDITIONAL ADDRESS INFO: 225 BROADWAY

TYPE OF OWNER: CORPORATE/COMMERCIAL

OWNER SUB TYPE:

OWNER ADDRESS: 160 BROADWAY SUITE 1200
NEW YORK NY 10038

PHONE: (212) 349-2154

EMERGENCY CONTACT: ABRAHAM TESSER
PHONE: (212) 349-2154

MAILING NAME: 225 BROADWAY COMPANY
ADDRESS: 160 BROADWAY SUITE 100
NEW YORK NY 10038
ATTENTION: NAFTALI BRAUN
PHONE: (212) 349-2154

CERTIFICATE DATE: 7/24/97 **EXP. DATE:** 7/14/02
RENEWAL DATE: 6/13/97

TANK INFORMATION

TANK NUMBER: 001 **TANK STATUS:** IN SERVICE
INSTALLED: **CLOSED:**
TANK CAPACITY: 20000 GALLONS
PRODUCT: # 5 OR 6 FUEL OIL

TANK TYPE: STEEL/CARBON STEEL
TANK LOCATION: UNDERGROUND

INTERNAL PROTECTION:
EXTERNAL PROTECTION:

PIPE TYPE: STEEL/IRON

PIPE LOCATION:

INTERNAL PROTECTION:

EXTERNAL PROTECTION:

SECONDARY CONTAINMENT: VAULT

LEAK DETECTION: NONE

OVERFILL PROTECTION: PRODUCT LEVEL GAUGE

DISPENSER: SUCTION

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 102 **DIST/DIR:** 0.10 SE **MAP ID:** 78

NAME:	225 BROADWAY	REV:	07/01/00
ADDRESS:	225 BROADWAY	ID1:	PBS2-253162
	NEW YORK NY 10007	ID2:	
		STATUS:	ACTIVE PBS FACILITY
CONTACT:	EDDIE FEMENELLA	PHONE:	(212) 227-8638

DATE TESTED:
NEXT TEST:
TEST METHOD:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

RCRA GENERATOR SITE

SEARCH ID: 48 **DIST/DIR:** 0.10 SE **MAP ID:** 44

NAME: NYC DEPT OF PARKS & RECREATION
ADDRESS: PARK ROW & BROADWAY CHAMBERS
NEW YORK NY 10007
NEW YORK
CONTACT: MOHASSEL PARVIZ

REV:
ID1: NYR000077123
ID2:
STATUS: SGN
PHONE: 2123854008

DETAILS NOT AVAILABLE

RCRA GENERATOR SITE

SEARCH ID: 50 **DIST/DIR:** 0.10 SE **MAP ID:** 46

NAME: NYCTA - FULTON STREET STATION
ADDRESS: BROADWAY & FULTON ST
NEW YORK NY 10038
NEW YORK
CONTACT: NEW YORK CITY TRANSIT AUTHORITY

REV:
ID1: NY0000638122
ID2:
STATUS: SGN
PHONE: 7183304581

ADDRESS: 370 JAY ST ROOM 809
BROOKLYN NY 11201

NOTIFIED:
PART A:

ACTIVITIES: SG: GENERATES 100-1000 KG/MONTH OF HAZARDOUS WASTE

CM+E LIST:
RAATS:

VIOL DATE:
ACTION DATE:

AGENCY:
DOCKET:

UPDATED: 11-10-98
UPDATED:

VIOL:
NUM:
ENF:
DATE:

ASSESS:

SETTLE:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

RCRA GENERATOR SITE

SEARCH ID: 5 **DIST/DIR:** 0.11 SW **MAP ID:** 5

NAME: 68 TRINITY PLACE MEZZANINE
ADDRESS: 68 TRINITY PL
NEW YORK NY 10006
NEW YORK
CONTACT: PARISH OF TRINITY CHURCH NY

REV:
ID1: NYR000028688
ID2:
STATUS: SGN
PHONE: 2126020867

ADDRESS: 74 TRINITY PL
NEW YORK NY 10006

NOTIFIED:
PART A:

ACTIVITIES: SG. GENERATES 100-1000 KG/MONTH OF HAZARDOUS WASTE

CM+E LIST:
RAATS:

VIOL DATE:
ACTION DATE:

AGENCY:
DOCKET:

UPDATED: 11-10-98
UPDATED:

VIOL:
NUM:
ENF:
DATE:

ASSESS:

SETTLE:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 85 **DIST/DIR:** 0.12 NE **MAP ID:** 65

NAME: 11 PARK PLACE ADDRESS: 11 PARK PLACE NYC NY 10007 CONTACT: LEFTY MATI	REV: 07/01/00 ID1: PBS2-147737 ID2: STATUS: ACTIVE PBS FACILITY PHONE: (212) 732-5832
---	--

PETROLEUM BULK STORAGE FACILITY INFORMATION

TYPE OF SITE:	OTHER		
TOTAL ACTIVE TANKS ON SITE:	1		
TOTAL FACILITY CAPACITY:	8000 GALLONS		
OLD PBS NUMBER:		CBS NUMBER:	SPDES NUMBER:
ADDITIONAL ADDRESS INFO:	11 PARK PLACE		
TYPE OF OWNER:			
OWNER SUB TYPE:			
OWNER ADDRESS:	530-5 AVENUE NEW YORK NY 10036		
PHONE:	(212) 704-3500		
EMERGENCY CONTACT:	LEFTY MATI		
PHONE:	(212) 732-5832		

MAILING NAME:	11 PARK PL ASSOC C/O W REAL ES		
ADDRESS:	530-5 AVE NYC NY 10036		
ATTENTION:	MICHAEL G. CAMPBELL		
PHONE:	(212) 704-3500		
CERTIFICATE DATE:	10/1/97	EXP. DATE:	10/29/02
RENEWAL DATE:	8/12/97		

TANK INFORMATION

TANK NUMBER:	001	TANK STATUS:	IN SERVICE
INSTALLED:		CLOSED:	
TANK CAPACITY:	8000 GALLONS		
PRODUCT:	# 5 OR 6 FUEL OIL		
TANK TYPE:	STEEL/CARBON STEEL		
TANK LOCATION:	ABOVEGROUND		
INTERNAL PROTECTION:			
EXTERNAL PROTECTION:			
PIPE TYPE:	STEEL/IRON		
PIPE LOCATION:			
INTERNAL PROTECTION:			
EXTERNAL PROTECTION:			
SECONDARY CONTAINMENT:	NONE		
LEAK DETECTION:	NONE		
OVERFILL PROTECTION:	PRODUCT LEVEL GAUGE		
DISPENSER:	SUCTION		

- Continued on next page -

***Environmental FirstSearch
Site Detail Report***

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 85	DIST/DIR: 0.12 NE	MAP ID: 65
----------------------	--------------------------	-------------------

NAME: 11 PARK PLACE
ADDRESS: 11 PARK PLACE
NYC NY 10007

REV: 07/01/00
ID1: PBS2-147737
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 732-5832

CONTACT: LEFTY MATI

DATE TESTED:
NEXT TEST:
TEST METHOD:

***Environmental FirstSearch
Site Detail Report***

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

RCRA GENERATOR SITE

SEARCH ID: 41	DIST/DIR: 0.12 NE	MAP ID: 38
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NAME: N KRUGER INC ADDRESS: 158 WESTSIDE HWY NEW YORK NY 11560 NEW YORK CONTACT: GREEN URBIE	REV: ID1: NYD986875573 ID2: STATUS: LGN PHONE: 5166711850
---	--

ADDRESS: NOT REQUIRED NOT REQUIRED WY 99999	NOTIFIED: PART A:
---	------------------------------------

ACTIVITIES: LG: GENERATES MORE THAN 1000 KG/MONTH OF HAZARDOUS WASTE

CM+E LIST: RAATS:	VIOL DATE: ACTION DATE:	AGENCY: DOCKET:	UPDATED: 11-10-98 UPDATED:
VIOL: NUM: ENF: DATE:	ASSESS:	SETTLE:	

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 92 **DIST/DIR:** 0.12 SE **MAP ID:** 70

NAME: 14 MAIDEN LANE BUILDING ADDRESS: 14 MAIDEN LANE NEW YORK NY 10007 CONTACT: BARRY STEMPEL	REV: 07/01/00 ID1: PBS2-100226 ID2: STATUS: ACTIVE PBS FACILITY PHONE: (212) 268-4400
--	--

PETROLEUM BULK STORAGE FACILITY INFORMATION

TYPE OF SITE: APARTMENT BUILDING	
TOTAL ACTIVE TANKS ON SITE: 1	
TOTAL FACILITY CAPACITY: 1500 GALLONS	
OLD PBS NUMBER:	CBS NUMBER:
ADDITIONAL ADDRESS INFO: 14 MAIDEN LANE	SPDES NUMBER:

TYPE OF OWNER: PRIVATE RESIDENT	
OWNER SUB TYPE:	
OWNER ADDRESS: 310 5TH AVENUE NEW YORK NY 10001	
PHONE: (212) 268-4400	

EMERGENCY CONTACT: BARRY STEMPEL	
PHONE: (212) 268-4400	

MAILING NAME: 14 MAIDEN LANE ASSOC.	
ADDRESS: 310 5TH AVENUE NEW YORK NY 10001	
ATTENTION:	
PHONE: (212) 268-4400	

CERTIFICATE DATE: 4/30/99	EXP. DATE: 4/21/04	
RENEWAL DATE: 12/11/96		

TANK INFORMATION

TANK NUMBER: 001	TANK STATUS: IN SERVICE	
INSTALLED: 12/1/80	CLOSED:	
TANK CAPACITY: 1500 GALLONS		
PRODUCT: # 1, 2, OR 4 FUEL OIL		

TANK TYPE: STEEL/CARBON STEEL	
TANK LOCATION: ABOVEGROUND	
INTERNAL PROTECTION: EPOXY LINER	
EXTERNAL PROTECTION: NONE	
PIPE TYPE: STEEL/IRON	
PIPE LOCATION: NONE	
INTERNAL PROTECTION: NONE	
EXTERNAL PROTECTION: NONE	
SECONDARY CONTAINMENT: 00	
LEAK DETECTION: 00	
OVERFILL PROTECTION: PRODUCT LEVEL GAUGE	
DISPENSER: SUCTION	

- Continued on next page -

***Environmental FirstSearch
Site Detail Report***

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 92 **DIST/DIR:** 0.12 SE **MAP ID:** 70

NAME: 14 MAIDEN LANE BUILDING
ADDRESS: 14 MAIDEN LANE
NEW YORK NY 10007

REV: 07/01/00
ID1: PBS2-100226
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 268-4400

CONTACT: BARRY STEMPEL

DATE TESTED:
NEXT TEST:
TEST METHOD:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

RCRA GENERATOR SITE

SEARCH ID: 28 **DIST/DIR:** 0.12 SW **MAP ID:** 25

NAME: GATEWAY CLEANERS
ADDRESS: 325 SOUTHEND AVE
NEW YORK NY 10280

REV:
ID1: NYD981133572
ID2:
STATUS: SGN
PHONE: 2123211010

CONTACT: DONG HO CHOI

ADDRESS: NOT REQUIRED
NOT REQUIRED WY 99999

NOTIFIED:
PART A:

ACTIVITIES: LG: GENERATES MORE THAN 1000 KG/MONTH OF HAZARDOUS WASTE

CM+E LIST:
RAATS:

VIOL DATE:
ACTION DATE:

AGENCY:
DOCKET:

UPDATED: 11-10-98
UPDATED:

VIOL:
NUM:
ENF:
DATE:

ASSESS:

SETTLE:

RCRA GENERATOR SITE

SEARCH ID: 32 **DIST/DIR:** 0.13 NW **MAP ID:** 29

NAME: MERRILL LYNCH WORLD FINANCIAL
ADDRESS: 250 VESEY ST
NEW YORK NY 10281
NEW YORK
CONTACT: PONZO ANTHONY

REV:
ID1: NYD987034279
ID2:
STATUS: LGN
PHONE: 2122360621

ADDRESS: 225 LIBERTY ST - WFC SOUTH
NEW YORK NY 10080

NOTIFIED:
PART A:

ACTIVITIES: LG: GENERATES MORE THAN 1000 KG/MONTH OF HAZARDOUS WASTE

CM+E LIST:
RAATS:

VIOL DATE:
ACTION DATE:

AGENCY:
DOCKET:

UPDATED: 11-10-98
UPDATED:

VIOL:
NUM:
ENF:
DATE:

ASSESS:

SETTLE:

***Environmental FirstSearch
Site Detail Report***

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

RCRA GENERATOR SITE

SEARCH ID: 32	DIST/DIR: 0.13 NW	MAP ID: 29
----------------------	--------------------------	-------------------

NAME: MERRILL LYNCH WORLD FINANCIAL
ADDRESS: 250 VESEY ST
NEW YORK NY 10281
NEW YORK
CONTACT: PONZO ANTHONY

REV:
ID1: NYD987034279
ID2:
STATUS: LGN
PHONE: 2122360621

ADDRESS: 225 LIBERTY ST - WFC SOUTH
NEW YORK NY 10080

NOTIFIED:
PART A:

ACTIVITIES: LG: GENERATES MORE THAN 1000 KG/MONTH OF HAZARDOUS WASTE

CM+E LIST:
RAATS:

VIOL DATE:
ACTION DATE:

AGENCY:
DOCKET:

UPDATED: 11-10-98
UPDATED:

VIOL:
NUM:
ENF:
DATE:

ASSESS:

SETTLE:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 154 **DIST/DIR:** 0.13 NW **MAP ID:** 29

NAME: WFC TOWER D COMPANY ADDRESS: 250 VESEY STREET NEW YORK NY 10048 CONTACT: MARK VILLARI	REV: 07/01/00 ID1: PBS2-601825 ID2: STATUS: ACTIVE PBS FACILITY PHONE: (212) 417-7078
---	--

PETROLEUM BULK STORAGE FACILITY INFORMATION

TYPE OF SITE: OTHER
TOTAL ACTIVE TANKS ON SITE: 1
TOTAL FACILITY CAPACITY: 4000 GALLONS
OLD PBS NUMBER: **CBS NUMBER:** **SPDES NUMBER:**
ADDITIONAL ADDRESS INFO:

TYPE OF OWNER: CORPORATE/COMMERCIAL
OWNER SUB TYPE:
OWNER ADDRESS: 250 VESEY STREET
NEW YORK NY 10048
PHONE: (212) 945-3390

EMERGENCY CONTACT: MARK VILLARI
PHONE: (212) 417-7078

MAILING NAME: BROOKFIELD FINANCIAL PROPERTIES, INC.
ADDRESS: ONE LIBERTY PLAZA
NEW YORK NY 10006
ATTENTION: MR. MARK VILLARI
PHONE: (212) 417-7078

CERTIFICATE DATE: 6/11/99 **EXP. DATE:** 4/28/04
RENEWAL DATE:

TANK INFORMATION

TANK NUMBER:	001	TANK STATUS:	IN SERVICE
INSTALLED:	1/1/87	CLOSED:	
TANK CAPACITY:	4000 GALLONS		
PRODUCT:	# 1, 2, OR 4 FUEL OIL		
TANK TYPE:	STEEL/CARBON STEEL		
TANK LOCATION:	ABOVEGROUND ON SADDLES, LEGS, STILTS, RACK, OR CRADLE		
INTERNAL PROTECTION:	NONE		
EXTERNAL PROTECTION:	PAINTED/ASPHALT COATING		
PIPE TYPE:	GALVANIZED STEEL		
PIPE LOCATION:	ABOVEGROUND/UNDERGROUND COMBINATION		
INTERNAL PROTECTION:	NONE		
EXTERNAL PROTECTION:	NONE		
SECONDARY CONTAINMENT:	51		
LEAK DETECTION:	04		
OVERFILL PROTECTION:	42		
DISPENSER:			

- Continued on next page -

***Environmental FirstSearch
Site Detail Report***

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 154

DIST/DIR: 0.13 NW

MAP ID: 29

NAME: WFC TOWER D COMPANY
ADDRESS: 250 VESEY STREET
NEW YORK NY 10048

REV: 07/01/00
ID1: PBS2-601825
ID2:
STATUS: ACTIVE PBS FACILITY
PHONE: (212) 417-7078

CONTACT: MARK VILLARI

DATE TESTED:
NEXT TEST:
TEST METHOD:

Environmental FirstSearch

Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

RCRA GENERATOR SITE

SEARCH ID: 62 **DIST/DIR:** 0.13 NW **MAP ID:** 29

NAME: WORLD FINANCIAL PROPERTIES
ADDRESS: 250 VERSEY ST ENGINEER OFFICE
NEW YORK NY 10281

REV:
ID1: NYR000054809
ID2:
STATUS: SGN
PHONE: 2129453390

CONTACT: GOLDSTEIN JEFFREY

ADDRESS: 250 VESEY ST ENGR OFFICE
NEW YORK NY 10281

NOTIFIED:
PART A:

ACTIVITIES: SG: GENERATES 100-1000 KG/MONTH OF HAZARDOUS WASTE

CM+E LIST:
RAATS:

VIOL DATE:
ACTION DATE:

AGENCY:
DOCKET:

UPDATED:
UPDATED:

VIOL:
NUM:
ENF:
DATE:

ASSESS:

SETTLE:

CERCLIS SITE

SEARCH ID: 1 **DIST/DIR:** 0.14 SE **MAP ID:** 1

NAME: RADIUM LUMINOUS MATERIALS CO
ADDRESS: 55 LIBERTY STREET
NEW YORK NY 10005

REV:
ID1: NYD987001443
ID2: 0203675
STATUS: N
PHONE:

CONTACT:

DESCRIPTION:

ACTION/QUALITY
DISCOVERY

AGENCY/RPS
State, Fund Financed

START/RAA

END
05-05-1992

PRELIMINARY ASSESSMENT
NFRAP (No Further Remedial Action Planned)

EPA Fund-Financed

08-10-1992

02-11-1993

***Environmental FirstSearch
Site Detail Report***

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

RCRA GENERATOR SITE

SEARCH ID: 36

DIST/DIR: 0.17 NE

MAP ID: 33

NAME: MTA NYCT - CITY HALL STATION

ADDRESS: BROADWAY & MURRAY ST
NEW YORK NY 10007
NEW YORK

CONTACT: JEHLE WILLIAM

REV:

ID1: NYR000074880

ID2:

STATUS: LGN

PHONE: 2123076010

DETAILS NOT AVAILABLE

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 159 **DIST/DIR:** 0.18 NE **MAP ID:** 116

NAME: 75 WARREN ST
ADDRESS: 75 WARREN ST
MANHATTAN NY

REV: 02/12/96
ID1: 9513843
ID2:
STATUS: CLOSED
PHONE:

CONTACT:

SPILL DATE: 01/30/96
SPILL TIME: 12:00

DATE REPORTED: 01/31/96
TIME REPORTED: 10:54

MATERIAL SPILLED: 0001
MATERIAL CLASS: P

AMOUNT SPILLED: 10 G
AMOUNT RECOVERED: 10 G

CAUSE OF SPILL: TANK FAILURE
RESOURCE AFFECTED: ON LAND
WATERBODY AFFECTED:
SOURCE OF SPILL: PRIVATE DWELLING
REPORTED BY: OTHER
CALLER REMARKS:

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR: KRIMGOLD
SPILL CONTACT: NANCY MANTAR

TELEPHONE:

SPILLER: APARTMENT BUILDING
ADDRESS: 75 WARREN ST
MANHATTAN, NY
SPILLER CONTACT: NANCY MANTAR

TELEPHONE:

CALLER:
AGENCY:
TELEPHONE:

NOTIFIER:
AGENCY:
TELEPHONE:

LAST DEC UPDATE: 02/12/96
DOES CLEAN UP MEET STANDARDS? NO
DEC REMARKS:

CLOSE DATE: 01/31/96
PENALTY RECOMMENDED? NO

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

RCRA GENERATOR SITE

SEARCH ID: 24 **DIST/DIR:** 0.20 SE **MAP ID:** 21

NAME: EQUITABLE BLUEPRINT & PHOTOPRINT INC
ADDRESS: 116 NASSAU ST
NEW YORK NY 10038
NEW YORK
CONTACT: LESHER MARTIN

REV:
ID1: NYD012002184
ID2:
STATUS: LGN
PHONE: 2129625672

ADDRESS: NOT REQUIRED
NOT REQUIRED WY 99999

NOTIFIED:
PART A:

ACTIVITIES: LG: GENERATES MORE THAN 1000 KG/MONTH OF HAZARDOUS WASTE

CM+E LIST: **VIOL DATE:** **AGENCY:** **UPDATED:** 11-10-98
RAATS: **ACTION DATE:** **DOCKET:** **UPDATED:**

VIOL:
NUM:
ENF:
DATE: **ASSESS:** **SETTLE:**

RCRA GENERATOR SITE

SEARCH ID: 42 **DIST/DIR:** 0.20 SE **MAP ID:** 39

NAME: NATIONAL PARK SERVICE
ADDRESS: 26 WALL ST - FEDERAL HALL NM
NEW YORK NY 10005
NEW YORK
CONTACT: MARTIN JOHN

REV:
ID1: NY7141707003
ID2:
STATUS: LGN
PHONE: 7182648702

ADDRESS: 26 WALL ST - FEDERAL HALL NM
NEW YORK NY 10005

NOTIFIED:
PART A:

ACTIVITIES: LG: GENERATES MORE THAN 1000 KG/MONTH OF HAZARDOUS WASTE

CM+E LIST: **VIOL DATE:** **AGENCY:** **UPDATED:** 11-10-98
RAATS: **ACTION DATE:** **DOCKET:** **UPDATED:**

VIOL:
NUM:
ENF:
DATE: **ASSESS:** **SETTLE:**

***Environmental FirstSearch
Site Detail Report***

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

RCRA GENERATOR SITE

SEARCH ID: 42	DIST/DIR: 0.20 SE	MAP ID: 39
----------------------	--------------------------	-------------------

NAME: NATIONAL PARK SERVICE
ADDRESS: 26 WALL ST - FEDERAL HALL NM
NEW YORK NY 10005
NEW YORK
CONTACT: MARTIN JOHN

REV:
ID1: NY7141707003
ID2:
STATUS: LGN
PHONE: 7182648702

ADDRESS: 26 WALL ST - FEDERAL HALL NM
NEW YORK NY 10005

NOTIFIED:
PART A:

ACTIVITIES: LG: GENERATES MORE THAN 1000 KG/MONTH OF HAZARDOUS WASTE

CM+E LIST:
RAATS:

VIOL DATE:
ACTION DATE:

AGENCY:
DOCKET:

UPDATED: 11-10-98
UPDATED:

VIOL:
NUM:
ENF:
DATE:

ASSESS:

SETTLE:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

RCRA GENERATOR SITE

SEARCH ID: 57 **DIST/DIR:** 0.23 SE **MAP ID:** 49

NAME: SEA-PATH MEDICAL LABORATORY
ADDRESS: 150 NASSAU ST
NEW YORK NY 10038
NEW YORK
CONTACT: WEINER ROBERTA

REV:
ID1: NYD987008489
ID2:
STATUS: LGN
PHONE: 2123852888

ADDRESS: 940 FAIRWAY LANE
MAAMARONECK NY 10543

NOTIFIED:
PART A:

ACTIVITIES: LG: GENERATES MORE THAN 1000 KG/MONTH OF HAZARDOUS WASTE

CM+E LIST:
RAATS:

VIOL DATE:
ACTION DATE:

AGENCY:
DOCKET:

UPDATED: 11-10-98
UPDATED:

VIOL:
NUM:
ENF:
DATE:

ASSESS:

SETTLE:

RCRA GENERATOR SITE

SEARCH ID: 7 **DIST/DIR:** 0.24 NE **MAP ID:** 7

NAME: ANACOMP INC
ADDRESS: 157 CHAMBERS ST - 2ND FLOOR
NEW YORK NY 10007

REV:
ID1: NYR000013078
ID2:
STATUS: LGN
PHONE: 2123493440

CONTACT: HELLMAN TOM

ADDRESS: PO BOX 40888
INDIANAPOLIS IN 46240

NOTIFIED:
PART A:

ACTIVITIES: SG: GENERATES 100-1000 KG/MONTH OF HAZARDOUS WASTE

CM+E LIST:
RAATS:

VIOL DATE:
ACTION DATE:

AGENCY:
DOCKET:

UPDATED: 11-10-98
UPDATED:

VIOL:
NUM:
ENF:
DATE:

ASSESS:

SETTLE:

***Environmental FirstSearch
Site Detail Report***

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

RCRA GENERATOR SITE

SEARCH ID: 7 **DIST/DIR:** 0.24 NE **MAP ID:** 7

NAME: ANACOMP INC
ADDRESS: 157 CHAMBERS ST - 2ND FLOOR
NEW YORK NY 10007

REV:
ID1: NYR000013078
ID2:
STATUS: LGN
PHONE: 2123493440

CONTACT: HELLMAN TOM

ADDRESS: PO BOX 40888
INDIANAPOLIS IN 46240

NOTIFIED:
PART A:

ACTIVITIES: SG: GENERATES 100-1000 KG/MONTH OF HAZARDOUS WASTE

CM+E LIST:
RAATS:

VIOL DATE:
ACTION DATE:

AGENCY:
DOCKET:

UPDATED: 11-10-98
UPDATED:

VIOL:
NUM:
ENF:
DATE:

ASSESS:

SETTLE:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 157 **DIST/DIR:** 0.25 NE **MAP ID:** 85

NAME: 270 BROADWAY
ADDRESS: 270 BROADWAY
NEW YORK M NY

REV: 04/11/00
ID1: 9912451
ID2:
STATUS: CLOSED
PHONE:

CONTACT:

SPILL DATE: 01/31/00
SPILL TIME: 13:00

DATE REPORTED: 01/31/00
TIME REPORTED: 14:10

MATERIAL SPILLED: 0008
MATERIAL CLASS: P

AMOUNT SPILLED: 0 G
AMOUNT RECOVERED: 0 G

CAUSE OF SPILL: TANK TEST FAILURE
RESOURCE AFFECTED: ON LAND
WATERBODY AFFECTED:
SOURCE OF SPILL: COMMERCIAL/INDUSTRIAL
REPORTED BY: AFFECTED PERSONS
CALLER REMARKS:

REGION: 2 **UST TRUST?** YES

SPILL INVESTIGATOR: SIGONA
SPILL CONTACT: KEITH DIERIO

TELEPHONE: (914) 694-9600

SPILLER: ARTHUR LEVVITT OFFICE BLD
ADDRESS: 270 BROADWAY
NEW YORK, NY
SPILLER CONTACT: MR KENNEDY

TELEPHONE: () -

CALLER:
AGENCY:
TELEPHONE:

NOTIFIER:
AGENCY:
TELEPHONE:

LAST DEC UPDATE: 04/11/00

CLOSE DATE: 04/11/00

DOES CLEAN UP MEET STANDARDS? YES

PENALTY RECOMMENDED? NO

DEC REMARKS:

4/5/00: SUSPECT PIPING AT FILL OR AT VENT AS PER CALL FROM SOPHIDES OF OGS DISTRICT 1. BLDG SALE TO BE COMPLETED IN FEW WEEKS. SMM DEC (SIGONA) CONDCUTED A SITE INVESTIGATION AND DETERMINED THAT THE LEAK WAS LOCATED IN THE VENT PIPE. THE SOIL WAS SAMPLED AND SENT BY TBES. THE TANKS ARE 4 X 275 GALLON ASTS. DEC SENT LETTER TO OGS DEMETRIOS SOPHIDES, DATED APRIL 11, 2000 CLOSING THE SPILL CASE.

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 111 **DIST/DIR:** 0.25 NE **MAP ID:** 85

NAME: ARTHUR LEVITT SOB ADDRESS: 270 BROADWAY NEW YORK NY 10007 CONTACT: NYS OFFICE OF GENERAL SERVICES	REV: 07/01/00 ID1: PBS2-401536 ID2: STATUS: ACTIVE PBS FACILITY PHONE: (212) 417-5294
---	--

PETROLEUM BULK STORAGE FACILITY INFORMATION

TYPE OF SITE:	OTHER		
TOTAL ACTIVE TANKS ON SITE:	1		
TOTAL FACILITY CAPACITY:	1110 GALLONS		
OLD PBS NUMBER:	CBS NUMBER:	SPDES NUMBER:	
ADDITIONAL ADDRESS INFO:	270 BROADWAY		
TYPE OF OWNER:	STATE GOVERNMENT		
OWNER SUB TYPE:	NYS OFFICE OF GENERAL SERVICES		
OWNER ADDRESS:	EMPIRE STATE PLAZA, CORNING TOWER, 39 FL ALABANY NY 12242		
PHONE:	(518) 474-6057		
EMERGENCY CONTACT:	ANTHONY J. CORAGINE		
PHONE:	(212) 417-5292		
MAILING NAME:	NEW YORK STATE OFFICE OF GENERAL SERVICES		
ADDRESS:	270 BROADWAY NEW YORK NY 10007		
ATTENTION:	ANTHONY J. CORAGINE BLD. MG		
PHONE:	(212) 417-5294		
CERTIFICATE DATE:	5/17/99	EXP. DATE:	10/29/02
RENEWAL DATE:	8/12/97		

TANK INFORMATION

TANK NUMBER:	001	TANK STATUS:	IN SERVICE
INSTALLED:	9/1/81	CLOSED:	
TANK CAPACITY:	1110 GALLONS		
PRODUCT:	DIESEL		
TANK TYPE:	STEEL/CARBON STEEL		
TANK LOCATION:	UNDERGROUND, VAULTED, WITH ACCESS		
INTERNAL PROTECTION:			
EXTERNAL PROTECTION:			
PIPE TYPE:	STEEL/IRON		
PIPE LOCATION:			
INTERNAL PROTECTION:			
EXTERNAL PROTECTION:			
SECONDARY CONTAINMENT:	VAULT		
LEAK DETECTION:	NONE		
OVERFILL PROTECTION:	PRODUCT LEVEL GAUGE		
DISPENSER:	SUCTION		

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 111 **DIST/DIR:** 0.25 NE **MAP ID:** 85

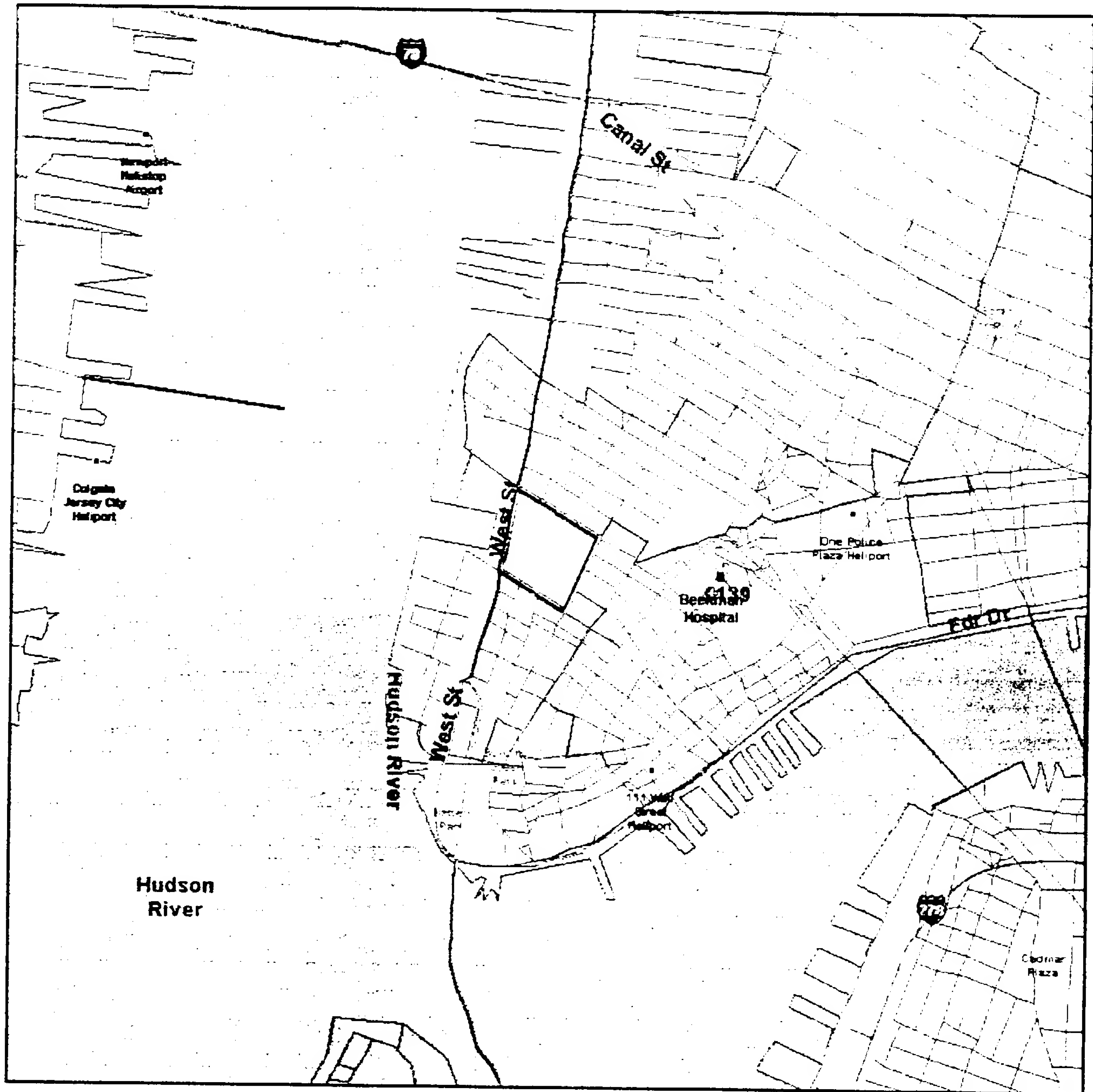
NAME:	ARTHUR LEVITT SOB	REV:	07/01/00
ADDRESS:	270 BROADWAY	ID1:	PBS2-401536
	NEW YORK NY 10007	ID2:	
CONTACT:	NYS OFFICE OF GENERAL SERVICES	STATUS:	ACTIVE PBS FACILITY
		PHONE:	(212) 417-5294

DATE TESTED:
NEXT TEST:
TEST METHOD:

Environmental FirstSearch
1 Mile Radius from Area
ASTM Map, NPL, RCRACOR, STATE Sites

FIRSTSEARCH

ONE WORLD TRADE CENTER NEW YORK CITY NY 10038



Source: 1999 U.S. Census TIGER Files

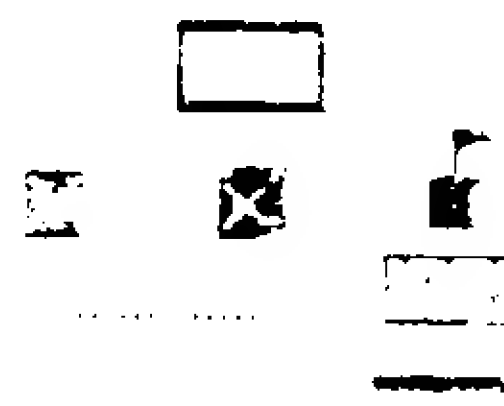
Area Polygon

Identified Site, Multiple Sites, Receptor

NPL, Solid Waste Landfill (SWL) or Hazardous Waste

Railroads

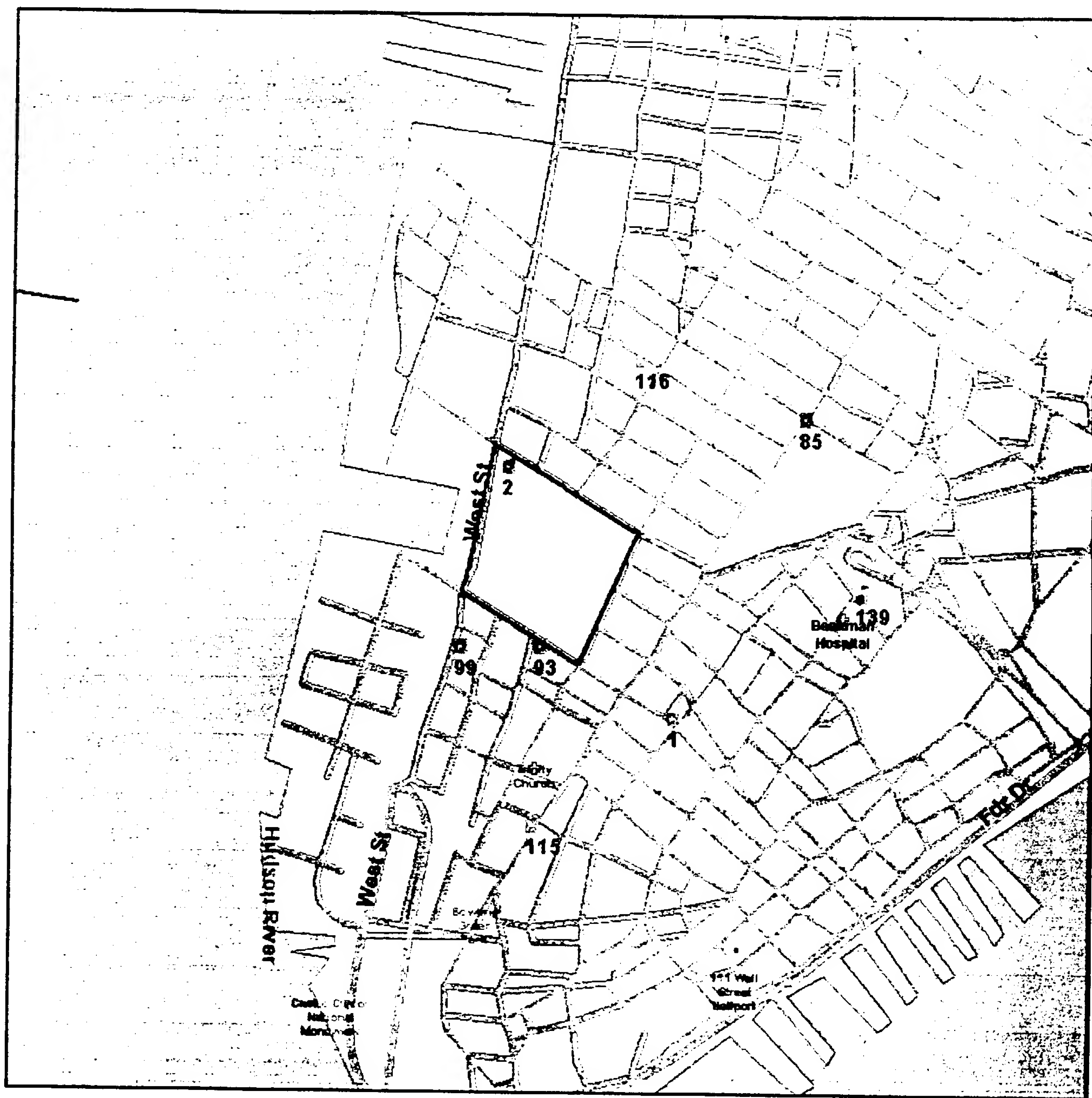
Black Rings Represent 1/4 Mile Radii



Environmental FirstSearch
 .5 Mile Radius from Area
 ASTM Map: CERCLIS, RCRATSD, LUST, SWL

FIRSTSEARCH

010 WORLD TRADE CENTER NEW YORK CITY NY 10038



Source: 1999 U.S. Census TIGER Files

- Area Polygon
- Identified Site, Multiple Sites, Receptor
- NPL, Solid Waste Landfill (SWL) or Hazardous Waste
- airroads
- Black Rings Represent 1/4 Mile Radius

DataMap Technology Corporation

Environmental FirstSearchTM Report

TARGET PROPERTY:

one WORLD TRADE CENTER

NEW YORK CITY NY 10081

Job Number: 000095

PREPARED FOR:

R.W. Crandlemere & Associates, Inc.

549 Columbian Street

Weymouth, MA 02190

10-03-00

FIRSTSEARCH

Tel: (781) 320-3720

Fax: (781) 320-3715

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Environmental FirstSearch

Search Summary Report

Target Site: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

FirstSearch Summary

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2 >	ZIP	TOTALS
NPL	N	07-27-00	0.50	-	-	-	-	-	-	-
CERCLIS	N	08-10-00	0.25	-	-	-	-	-	-	-
RCRA TSD	N	06-24-00	0.25	-	-	-	-	-	-	-
RCRA COR	N	06-24-00	0.50	-	-	-	-	-	-	-
RCRA GEN	N	06-24-00	0.25	-	-	-	-	-	-	-
RCRA NLR	N	10-18-99	0.25	-	-	-	-	-	-	-
ERNS	N	01-06-00	0.25	-	-	-	-	-	-	-
NPDES	Y	10-18-99	0.25	0	1	1	-	-	0	2
FINDS	N	09-21-99	0.25	-	-	-	-	-	-	-
TRIS	N	07-16-98	0.25	-	-	-	-	-	-	-
State Sites	N	04-01-00	0.50	-	-	-	-	-	-	-
Spills-1990	Y	07-01-00	0.25	0	11	50	-	-	2	63
Spills-1980	N	10-01-99	0.25	-	-	-	-	-	-	-
SWL	N	12-01-99	0.25	-	-	-	-	-	-	-
Permits	Y	NA	0.25	0	1	1	-	-	0	2
Other	N	NA	0.25	-	-	-	-	-	-	-
REG UST/AST	N	07-01-00	0.25	-	-	-	-	-	-	-
Leaking UST	N	07-01-00	0.25	-	-	-	-	-	-	-
State Wells	N	02-02-98	0.50	-	-	-	-	-	-	-
Aquifers	N	NA	0.50	-	-	-	-	-	-	-
ACEC	N	NA	0.50	-	-	-	-	-	-	-
Wetlands	N	12-31-99	0.50	-	-	-	-	-	-	-
Floodplains	N	09-01-96	0.50	-	-	-	-	-	-	-
Receptors	N	01-01-95	0.50	-	-	-	-	-	-	-
Nuclear Permits	N	04-30-99	0.50	-	-	-	-	-	-	-
Historic/Landmark	N	09-01-99	0.50	-	-	-	-	-	-	-
Federal Land Use	N	06-17-98	0.50	-	-	-	-	-	-	-
Federal Wells	N	NA	0.50	-	-	-	-	-	-	-
Releases(Air/Water)	N	NA	0.25	-	-	-	-	-	-	-
- TOTALS -				0	13	52	0	0	2	67

Notice of Disclaimer

Due to the limitations, constraints, inaccuracies and incompleteness of government information and computer mapping data currently available to DataMap Technology Corp., certain conventions have been utilized in preparing the locations of all federal, state and local agency sites residing in DataMap Technology Corp.'s databases. All EPA NPL and state landfill sites are depicted by a rectangle approximating their location and size. The boundaries of the rectangles represent the eastern and western most longitudes, the northern and southern most latitudes. As such, the mapped areas may exceed the actual areas and do not represent the actual boundaries of these properties. All other sites are depicted by a point representing their approximate address location and make no attempt to represent the actual areas of the associated property. Actual boundaries and locations of individual properties can be found in the files residing at the agency responsible for such information.

Waiver of Liability

Although DataMap Technology Corp. uses its best efforts to research the actual location of each site, DataMap Technology Corp. does not and can not warrant the accuracy of these sites with regard to exact location and size. All authorized users of DataMap Technology Corp.'s services proceeding are signifying an understanding of DataMap Technology Corp.'s searching and mapping conventions, and agree to waive any and all liability claims associated with search and map results showing incomplete and or inaccurate site locations.

Environmental FirstSearch
Site Information Report

Request Date: 10-03-00
Requestor Name: Ginny Berry
Standard: ASTM

Search Type: COORD
Job Number: 000095
FILTERED REPORT

Target Address: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

Demographics

Sites: 67	Non-Geocoded: 2	Population: NA
Radon: NA		

Site Location

	<u>Degrees (Decimal)</u>	<u>Degrees (Min/Sec)</u>	<u>UTMs</u>
Longitude:	-74.012215	-74:04	Easting: 583438.479
Latitude:	40.711325	40:42:41	Northing: 4506969.969
			Zone: 18

Comment

Comment: WORLD TRADE CENTER, NYC

Additional Requests/Services

Adjacent ZIP Codes: 0.00 Mile(s)

Services:

ZIP				
Code	City Name	ST	Dist/Dir	Sel

	<u>Requested?</u>	<u>Date</u>
Sanborns	N	
Aerial Photographs	N	
Topo Maps (hardcopy)	N	
City Directories	N	
Title Search	N	
Municipal Reports	N	
Online Topo Map	N	

Environmental FirstSearch

Sites Summary Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

TOTAL: 67 **GEOCODED:** 65 **NON GEOCODED:** 2 **SELECTED:** 65

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
20	SPILLS	HUDSON RIVER 9815253/CLOSED	1 WORLD TRADE CENTER NEW YORK NY 10007	0.07 NW	2
33	SPILLS	ONE WORLD TRANDE CENTER 9412434/CLOSED	1 WORLD TRADE CENTER NEW YORK NY 10048	0.07 NW	2
38	SPILLS	TRADE CENTER #1 SUB-STA. 9913557/ACTIVE	TRADE CENTER #1 NEW YORK NY 10007	0.07 NW	2
2	NPDES	WORLD TRADE CENTER NY0006033/MINOR	NEW YORK NY 10047	0.07 NW	2
65	PERMITS	WORLD TRADE CENTER 2-0006033/SSIGIND	NEW YORK NY 10047	0.07 NW	2
28	SPILLS	MARIOTT HOTEL 9514293/CLOSED	3 RURAL TRADE CENTER NEW YORK NY 10007	0.08 SW	20
26	SPILLS	MANHOLE #TM3387 9906471/ACTIVE	WEST 3RD 7 WEST BROADWAY NEW YORK NY 10007	0.10 NE	18
25	SPILLS	MANHOLE #61063 9901819/ACTIVE	VESEY ST / WASHINGTON ST NEW YORK NY 10007	0.10 NW	17
24	SPILLS	MANHOLE #59942 9901604/ACTIVE	FULTON ST / CHURCH ST NEW YORK NY 10007	0.10 SE	16
30	SPILLS	MH 47895 9900381/ACTIVE	LIBERTY/WASHINGTON ST NEW YORK NY 10007	0.10 SW	22
21	SPILLS	LIBERTY STREET 9414473/CLOSED	LIBERTY ST / GREENWICH ST NEW YORK NY 10006	0.11 SW	15
31	SPILLS	NEW YORK CITY FD ENG 10 9610078/ACTIVE	124 LIBERTY ST NEW YORK NY 10006	0.12 SW	23
57	SPILLS	WEST ST AND LIBERTY ST 9708178/ACTIVE	WEST ST AND LIBERTY ST MANHATTAN NY 10007	0.12 SW	30
13	SPILLS	BARCLAY ST & W BROADWAY 8810172/ACTIVE	BARCLAY ST & W BROADWAY NEW YORK NY	0.13 NE	11
17	SPILLS	CON ED SUB STATION 9600536/ACTIVE	66 BARCLAY ST NEW YORK NY 10007	0.13 NE	14
18	SPILLS	FEEDER 38M11 9601221/ACTIVE	66 BARCLAY ST NEW YORK NY 10007	0.13 NE	14
19	SPILLS	FEEDER 38M13 9911353/ACTIVE	66 BARCKLEY ST NEW YORK NY 10007	0.13 NE	14
22	SPILLS	MANHOLE # 61027 0003719/ACTIVE	66 BARCKLEY ST NEW YORK NY 10007	0.13 NE	14
36	SPILLS	TRADE CENTER 9706616/CLOSED	66 BARCLAY STREET MANHATTAN NY 10007	0.13 NE	14
40	SPILLS	TRADE CENTER SUB STATION 9813899/ACTIVE	66 BARCLAY ST MANHATTAN NY 10007	0.13 NE	14

Environmental FirstSearch

Sites Summary Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

TOTAL: 67 **GEOCODED:** 65 **NON GEOCODED:** 2 **SELECTED:** 65

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
39	SPILLS	TRADE CENTER SUB STATION 9603838/ACTIVE	66 BARCLAY ST NEW YORK NY 10007	0.13 NE	14
41	SPILLS	TRADE CENTER SUB STATION 9811342/ACTIVE	66 BARKLEY ST NEW YORK NY 10007	0.13 NE	14
42	SPILLS	TRADE CENTER SUB STATION 9814191/ACTIVE	66 BARCLAY ST MANHATTAN NY 10007	0.13 NE	14
43	SPILLS	TRADE CENTER SUB STATION 9909027/ACTIVE	66 BARCLAY ST NEW YORK NY 10007	0.13 NE	14
44	SPILLS	TRADE CENTER SUB STATION 9906461/ACTIVE	66 BARCLAY ST NEW YORK NY 10007	0.13 NE	14
45	SPILLS	TRADE CENTER SUB STATION 9706554/CLOSED	WORLD TRADE CENTER MANHATTEN NY 10007	0.13 NE	14
46	SPILLS	TRADE CENTER SUB STATION 9804562/CLOSED	66 BARCLAY ST NEW YORK NY	0.13 NE	14
52	SPILLS	TRADE CENTER SUBSTATION 9901876/ACTIVE	66 BARCLAY ST NEW YORK NY 10007	0.13 NE	14
48	SPILLS	TRADE CENTER SUBSTATION 9707175/CLOSED	TRADE CENTER SUBSTATION MANHATTAN NY 10007	0.13 NE	14
53	SPILLS	TRADE CENTER SUBSTATION 9808989/ACTIVE	BARKLEY ST NEW YORK NY	0.13 NE	14
51	SPILLS	TRADE CENTER SUBSTATION 9902540/ACTIVE	66 BARCLAY ST NEW YORK NY 10007	0.13 NE	14
49	SPILLS	TRADE CENTER SUBSTATION 9901812/ACTIVE	66 BARCLAY ST NEW YORK NY 10007	0.13 NE	14
54	SPILLS	TRADE CTR SUBSTATION 9812419/ACTIVE	66 BARCLAY ST NEW YORK NY 10007	0.13 NE	14
58	SPILLS	WORLD TRADE CENTER SS 9804167/CLOSED	66 BARCLAY ST MANHATTAN NY	0.13 NE	14
59	SPILLS	WORLD TRADE CTR SUB-STAT. 9602772/ACTIVE	BARCLEY ST NEW YORK NY 10007	0.13 NE	14
61	SPILLS	9813200/ACTIVE	BARCLAY BET CHURCH/BROADW MANHATTAN NY 10007	0.14 NE	12
7	SPILLS	81 BARCLY ST 9611541/ACTIVE	81 BARCLY ST NEW YORK NY 10007	0.14 NE	7
8	SPILLS	90 CHURCH ST/US POSTALSVC 9106123/ACTIVE	90 CHURCH ST NEW YORK NY 10007	0.14 NE	8
15	SPILLS	BET CHURCH/WEST BROADWAY 9701106/CLOSED	BARKLEY ST NEW YORK NY 10007	0.14 NE	12
37	SPILLS	TRADE CENTER #1 SUB STA 9912803/ACTIVE	66 BARKLEY ST NEW YORK NY 10007	0.14 NE	26

Environmental FirstSearch

Sites Summary Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

TOTAL: 67 **GEOCODED:** 65 **NON GEOCODED:** 2 **SELECTED:** 65

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
47	SPILLS	TRADE CENTER SUB-STATION 9912810/ACTIVE	TRANSFORMER#7 BARCLAY ST NEW YORK NY 10007	0.14 NE	12
50	SPILLS	TRADE CENTER SUBSTATION 9911764/ACTIVE	65 BARCLAY ST NEW YORK NY 10007	0.14 NE	27
55	SPILLS	VAULT #4646 9812316/ACTIVE	46 BARCLAY ST NEW YORK NY 10007	0.14 NE	28
64	PERMITS	BATTERY PARK COMMERCIAL CENTER 2-0109932/SSIGIND	NEW YORK NY 10006	0.14 SW	1
1	NPDES	BATTERY PARK COMMERCIAL CENTER NY0109932/MINOR	NEW YORK COUNT NY 10006	0.14 SW	1
11	SPILLS	BARCLAY ST & CHURCH ST 9013327/ACTIVE	BARCLAY ST & CHURCH ST NEW YORK NY	0.15 NE	10
12	SPILLS	BARCLAY ST & CHURCH ST 9013332/ACTIVE	BARCLAY ST & CHURCH ST NEW YORK NY	0.15 NE	10
14	SPILLS	BARCLAY ST. OF CHURCH ST. 9314107/CLOSED	BARCLAY ST. OF CHURCH ST. NEW YORK NY 10007	0.15 NE	10
23	SPILLS	MANHOLE #26168 9907061/ACTIVE	BARKLEY/CHURCH ST NEW YORK NY 10007	0.15 NE	10
27	SPILLS	MANHOLE 60860 9910133/ACTIVE	WEST ST AND VESEY ST NEW YORK NY 10007	0.15 NW	19
4	SPILLS	137 GREENWICH STREET 9313411/ACTIVE	137 GREENWICH STREET NEW YORK NY 10006	0.15 SW	4
62	SPILLS	9907612/ACTIVE	90 BARKLEY ST NEW YORK NY 10007	0.16 NW	32
9	SPILLS	90 WEST ST 9610083/CLOSED	90 WEST ST NEW YORK NY 10006	0.16 SW	9
10	SPILLS	90 WEST STREET 9600109/ACTIVE	90 WEST STREET NEW YORK NY 10006	0.16 SW	9
16	SPILLS	COLLEGIATE DUTCH REFORM C 9516128/CLOSED	198 BROADWAY NEW YORK NY 10038	0.18 SE	13
60	SPILLS	9903519/ACTIVE	BARKLEY ST WEST ST NEW YORK NY 10007	0.19 NW	31
5	SPILLS	145 BROADWAY 9602463/CLOSED	145 BROADWAY NEW YORK NY 10006	0.19 SE	5
6	SPILLS	170 BROADWAY 9515608/CLOSED	170 BROADWAY NEW YORK NY 10038	0.19 SE	6
32	SPILLS	NORTH BASIN YACHT CLUB 9607185/CLOSED	WESTSIDE HWY.BATTERY PARK NEW YORK NY 10280	0.19 SW	24
29	SPILLS	MH 0033 9813566/ACTIVE	LIBERTY AND BROADWAY MANHATTAN NY 10006	0.20 SE	21

Environmental FirstSearch

Sites Summary Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

TOTAL: 67 **GEOCODED:** 65 **NON GEOCODED:** 2 **SELECTED:** 65

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
35	SPILLS	TMR 0033 9902686/ACTIVE	BROADWAY/LIBERTY ST NEW YORK NY 10006	0.20 SE	21
3	SPILLS	132 BROADWAY 9210319/CLOSED	132 BROADWAY NEW YORK NY 10005	0.21 SE	3
56	SPILLS	VAULT 4307 0001142/CLOSED	17 JOHN ST NEW YORK NY 10038	0.22 SE	29
63	SPILLS	9808606/ACTIVE	MURRAY ST & GREENWICH ST NEW YORK NY	0.23 NE	33
34	SPILLS	STRAWBERRY SHOP 9512928/CLOSED	79-81 NASSAU ST NEW YORK NY 10038	0.25 SE	25

Environmental FirstSearch
Sites Summary Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

TOTAL: 67 **GEOCODED:** 65 **NON GEOCODED:** 2 **SELECTED:** 65

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
66	SPILLS	4687 WASHINGTON AVE/BX 9012119/CLOSED	4687 WASHINGTON AVENUE BRONX NY 10458	NON GC	
67	SPILLS	RAAMCO 9709070/CLOSED	182ND/BROADWAY NEW YORK CITY NY	NON GC	

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 20 **DIST/DIR:** 0.07 NW **MAP ID:** 2

NAME: HUDSON RIVER	REV: 03/24/99
ADDRESS: 1 WORLD TRADE CENTER	ID1: 9815253
NEW YORK NY	ID2:
CONTACT:	STATUS: CLOSED
	PHONE:

SPILL DATE: 3/24/99	DATE REPORTED: 3/24/99	
SPILL TIME: 13.30	TIME REPORTED: 13.33	

MATERIAL SPILLED: UNKNOWN PETROLEUM	AMOUNT SPILLED: 0 G	
MATERIAL CLASS: 1	AMOUNT RECOVERED: 0 G	

CAUSE OF SPILL:	UNKNOWN
RESOURCE AFFECTED:	SURFACE WATER
WATERBODY AFFECTED:	HUDSON RIVER
SOURCE OF SPILL:	UNKNOWN
REPORTED BY:	07

CALLER REMARKS:
CALLER WAS LOOKING OUT WINDOW AT WORK AND NOTICED A BLUISH/TAN SHEEN IN RIVER.

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR: ZHAO	
SPILL CONTACT:	TELEPHONE:

SPILLER: UNKNOWN
ADDRESS:

SPILLER CONTACT:	TELEPHONE:
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CALLER: JOE VILARDO	NOTIFIER: JOE VILARDO
AGENCY: CITIZEN	AGENCY: CITIZEN
TELEPHONE: (212) 938-7055	TELEPHONE: (212) 938-7055

LAST DEC UPDATE: 03/24/99	CLOSE DATE: 03/24/99
DOES CLEAN UP MEET STANDARDS? NO	PENALTY RECOMMENDED? NO
DEC REMARKS: REFERRED TO NYCDEP	

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 33 **DIST/DIR:** 0 07 NW **MAP ID:** 2

NAME: ONE WORLD TRAND CENTER ADDRESS: 1 WORLD TRADE CENTER NEW YORK CITY NY	REV: / / ID1: 9412434 ID2: STATUS: CLOSED PHONE:
CONTACT:	

SPILL DATE: 12/16/94	DATE REPORTED: 12/16/94
SPILL TIME: 10:45	TIME REPORTED: 11:17

MATERIAL SPILLED: UNKNOWN PETROLEUM	AMOUNT SPILLED: 20 G
MATERIAL CLASS: 1	AMOUNT RECOVERED: 0 G

CAUSE OF SPILL:	UNKNOWN
RESOURCE AFFECTED:	ON LAND
WATERBODY AFFECTED:	
SOURCE OF SPILL:	COMMERCIAL/INDUSTRIAL
REPORTED BY:	OTHER

CALLER REMARKS:
PIN HOLE IN 55 GAL. DAR. -CONCRETE FLOOR. CLEANING UP WITH SPEEDY DRY

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR:	TELEPHONE:
SPILL CONTACT:	

SPILLER: EX-TENANT
ADDRESS:

SPILLER CONTACT:	TELEPHONE: (212) 435-5571
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CALLER: PAUL MAULLO AGENCY: PORT AUTHORITY OF NY&NJ TELEPHONE: (201) 216-2893	NOTIFIER: AGENCY: TELEPHONE:
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LAST DEC UPDATE:	CLOSE DATE: 12/16/97
DOES CLEAN UP MEET STANDARDS? YES	PENALTY RECOMMENDED? NO

DEC REMARKS:
10/10/95 THIS IS ADDITIONAL INFORMATION ABOUT MATERIAL SPILLED FROM THE TRANSLATION OF THE OLD SPILL FILE.
HYDRO AERO CARBONS

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 38 **DIST/DIR:** 0.07 NW **MAP ID:** 2

NAME: TRADE CENTER #1 SUB-STA. ADDRESS: TRADE CENTER #1 MANHATTAN NY CONTACT:	REV: 03/01/00 ID1: 9913557 ID2: STATUS: ACTIVE PHONE:
---	--

SPILL DATE: 03/01/00	DATE REPORTED: 03/01/00
SPILL TIME: 09:25	TIME REPORTED: 11:15

MATERIAL SPILLED: 0066	AMOUNT SPILLED: 1 G
MATERIAL CLASS: 2	AMOUNT RECOVERED: 0 G

CAUSE OF SPILL:	EQUIPMENT FAILURE
RESOURCE AFFECTED:	ON LAND
WATERBODY AFFECTED:	
SOURCE OF SPILL:	NON-COMMERCIAL/INSTITUTIONAL
REPORTED BY:	RESPONSIBLE PARTY
CALLER REMARKS:	

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR: O CONNELL SPILL CONTACT: CALLER	TELEPHONE: () -
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SPILLER: CON ED ADDRESS: 4 IRVING PL NEW YORK, NY SPILLER CONTACT: CALLER	TELEPHONE: (212) 580-6763
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CALLER: AGENCY: TELEPHONE:	NOTIFIER: AGENCY: TELEPHONE:
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LAST DEC UPDATE: 03/01/00 DOES CLEAN UP MEET STANDARDS? NO DEC REMARKS:	CLOSE DATE: PENALTY RECOMMENDED? NO
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Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

PERMITS SITE

SEARCH ID: 65 **DIST/DIR:** 0 07 NW **MAP ID:** 2

NAME: WORLD TRADE CENTER	REV:
ADDRESS: NEW YORK NY 10047	ID1: 2-0006033
NEW YORK	ID2: 02
CONTACT: EUGENE FASULLO	STATUS: SSIGIND
	PHONE:

SOURCE:	CLASS: SSIGIND
REC WATER: HUDSON RIVER	DES FLOW: 25 MG D
MAIL CONTACT:	
COMPANY: PORT AUTHORITY OF N Y & N J WO	TELEPHONE:
ADDRESS: ONE WORLD TRADE CENTER RM 72 S	ISSUE DATE:
NEW YORK	EXPIRE DATE:
CITY: NY	
NOV:	ACTION NO:
	REV DATE:
TYPE: SURFACE	ISS:
TYPE:	TYPE: UNKNOWN
	ISS:
ISS:	

NPDES SITE

SEARCH ID: 2 **DIST/DIR:** 0 07 NW **MAP ID:** 2

NAME: WORLD TRADE CENTER	REV:
ADDRESS: NEW YORK NY 10047	ID1: NY0006033
NEW YORK	ID2:
CONTACT:	STATUS: MINOR
	PHONE:

SOURCE: NPDES	CLASS: MINOR
REC WATER: HUDSON R	DES FLOW: 25 00 MG D
MAIL CONTACT:	
COMPANY: WORLD TRADE CENTER	TELEPHONE:
ADDRESS:	ISSUE DATE: 09-26-85
	EXPIRE DATE: 09-30-90
CITY:	
NOV:	ACTION NO:
	REV DATE:
TYPE:	ISS:
TYPE:	TYPE:
	ISS:
ISS:	

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

NPDES SITE			
SEARCH ID: 2	DIST/DIR: 0.07 NW	MAP ID: 2	
<hr/>			
NAME: WORLD TRADE CENTER ADDRESS: NEW YORK NY 10047 NEW YORK CONTACT:	REV: ID1: NY0006033 ID2: STATUS: MINOR PHONE:		
<hr/>			
SOURCE: NPDES REC WATER: HUDSON R MAIL CONTACT: COMPANY: WORLD TRADE CENTER ADDRESS: CITY: NOV: TYPE: TYPE: ISS:	CLASS: MINOR DES FLOW: 25.00 MGD TELEPHONE: ISSUE DATE: 09-26-85 EXPIRE DATE: 09-30-90 ACTION NO: ISS: REV DATE: TYPE: TYPE: ISS:		

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER NYC

STATE SPILLS SITE

SEARCH ID: 28

DIST/DIR: 0.08 SW

MAP ID: 20

NAME: MARIOTT HOTEL
ADDRESS: 3 RURAL TRADE CENTER
MANHATTEN NY

REV: 02/21/96
ID1: 9514293
ID2:
STATUS: CLOSED
PHONE:

CONTACT:

SPILL DATE: 2/9/96
SPILL TIME: 07.06

DATE REPORTED: 2/9/96
TIME REPORTED: 08.28

MATERIAL SPILLED: WASTE OIL
MATERIAL CLASS: 1

AMOUNT SPILLED: 1 G
AMOUNT RECOVERED: 0 G

CAUSE OF SPILL: TRAFFIC ACCIDENT
RESOURCE AFFECTED: ON LAND
WATERBODY AFFECTED:
SOURCE OF SPILL: PASSENGER VEHICLE
REPORTED BY: 03
CALLER REMARKS:
CAR RAN INTO HOTEL SPILLED ENGINE OIL.

REGION: 2

UST TRUST? NO

SPILL INVESTIGATOR: KRIMGOLD
SPILL CONTACT:

TELEPHONE: (212) 938-2312

SPILLER: LONNYS HACKING CORP
ADDRESS: 218 ROCKAWAY TKP
CEDARHURST, NY

SPILLER CONTACT:

TELEPHONE: (212) 586-3835

CALLER: MR PAUGH
AGENCY: PORT AUTHORITY
TELEPHONE: (212) 435-3540

NOTIFIER: SECURITY
AGENCY: PORT AUTHORITY
TELEPHONE: (212) 435-3540

LAST DEC UPDATE: 02/21/96
DOES CLEAN UP MEET STANDARDS? NO
DEC REMARKS:

CLOSE DATE: 02/09/96
PENALTY RECOMMENDED? NO

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 26 **DIST/DIR:** 0 10 NE **MAP ID:** 18

NAME: MANHOLE #TM3387	REV: 02/09/00
ADDRESS: WEST 3RD 7 WEST BROADWAY	ID1: 9906471
MANHATTAN NY	ID2:
CONTACT:	STATUS: ACTIVE
	PHONE:

SPILL DATE: 8/31/99	DATE REPORTED: 8/31/99
SPILL TIME: 11 00	TIME REPORTED: 12 28

MATERIAL SPILLED: DIELECTRIC FLUID	AMOUNT SPILLED: 50 G
MATERIAL CLASS: 1	AMOUNT RECOVERED: 0 G

CAUSE OF SPILL:	EQUIPMENT FAILURE
RESOURCE AFFECTED:	ON LAND
WATERBODY AFFECTED:	
SOURCE OF SPILL:	COMMERCIAL/INDUSTRIAL
REPORTED BY:	01

CALLER REMARKS:
SPILL HAS BEEN CONTAINED-CLEANUP PENDING LAB RESULTS- CON ED #127516

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR:	O CONNELL	
SPILL CONTACT:	JOE DEVOTI	TELEPHONE: (212) 580-6763

SPILLER:	MANHOLE #TM3387	
ADDRESS:	WEST 3RD 7 WEST BROADWAY	
	MANHATTAN	
SPILLER CONTACT:	JOE DEVOTI	TELEPHONE: (212) 580-6763

CALLER: JOE DEVOTI	NOTIFIER: JOE DEVOTI
AGENCY: CON EDISON	AGENCY: CONED
TELEPHONE: (212) 580-6763	TELEPHONE: (212) 580-6763

LAST DEC UPDATE: 08/31/99	CLOSE DATE:
DOES CLEAN UP MEET STANDARDS? NO	PENALTY RECOMMENDED? NO
DEC REMARKS:	

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 25 **DIST/DIR:** 0.10 NW **MAP ID:** 17

NAME: MANHOLE #61063
ADDRESS: VESEY ST / WASHINGTON ST
MANHATTAN NY

REV: 05/17/99
ID1: 9901819
ID2:
STATUS: ACTIVE
PHONE:

CONTACT:

SPILL DATE: 5/17/99
SPILL TIME: 10:00

DATE REPORTED: 5/17/99
TIME REPORTED: 10:59

MATERIAL SPILLED: UNKNOWN PETROLEUM
MATERIAL CLASS: 1

AMOUNT SPILLED: 20 G
AMOUNT RECOVERED: 0 G

CAUSE OF SPILL: UNKNOWN
RESOURCE AFFECTED: ON LAND
WATERBODY AFFECTED:
SOURCE OF SPILL: COMMERCIAL/INDUSTRIAL
REPORTED BY: 01
CALLER REMARKS:
CASE #124926

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR: O'CONNELL
SPILL CONTACT:

TELEPHONE:

SPILLER: CON EDISON
ADDRESS: 4 IRVING PLACE
NEW YORK, NY 10003-

SPILLER CONTACT:

TELEPHONE: (212) 580-6763

CALLER: MIKE CESARE
AGENCY: CON EDISON
TELEPHONE: 212) 580-6763

NOTIFIER: HEFFERNAN
AGENCY: CON EDISON
TELEPHONE: 212) 580-6764

LAST DEC UPDATE: 05/17/99
DOES CLEAN UP MEET STANDARDS? NO
DEC REMARKS:

CLOSE DATE:
PENALTY RECOMMENDED? NO

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 24

DIST/DIR: 0.10 SE

MAP ID: 16

NAME: MANHOLE #59942
ADDRESS: FULTON ST / CHURCH ST
MANHATTAN NY

REV: 05/12/99
ID1: 9901604
ID2:
STATUS: ACTIVE
PHONE:

CONTACT:

SPILL DATE: 5/11/99
SPILL TIME: 13:20

DATE REPORTED: 5/11/99
TIME REPORTED: 14:27

MATERIAL SPILLED: DIELECTRIC FLUID
MATERIAL CLASS: 1

AMOUNT SPILLED: 1 G
AMOUNT RECOVERED: 1 G

CAUSE OF SPILL: EQUIPMENT FAILURE
RESOURCE AFFECTED: ON LAND
WATERBODY AFFECTED:
SOURCE OF SPILL: COMMERCIAL/INDUSTRIAL
REPORTED BY: 01

CALLER REMARKS:

16 OUNCES LEAKING FROM A JOINT ON THE CABLE - SAMPLE TAKEN - CASE #124799

REGION: 2

UST TRUST? NO

SPILL INVESTIGATOR: ENGELHARDT
SPILL CONTACT:

TELEPHONE:

SPILLER: CON EDISON
ADDRESS: 4 IRVING PLACE
NEW YORK, NY 10003-

SPILLER CONTACT:

TELEPHONE: () -

CALLER: RICHARD ROACH
AGENCY: CON EDISON
TELEPHONE: (212) 580-6763

NOTIFIER: CURTIS
AGENCY:
TELEPHONE:

LAST DEC UPDATE: 05/12/99
DOES CLEAN UP MEET STANDARDS? NO
DEC REMARKS:

CLOSE DATE:
PENALTY RECOMMENDED? NO

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 30 **DIST/DIR:** 0.10 SW **MAP ID:** 22

NAME: MH 47895	REV: 03/28/00
ADDRESS: LIBERTY/WASHINGTON ST MANHATTAN NY	ID1: 9900381
	ID2:
	STATUS: ACTIVE
CONTACT:	PHONE:

SPILL DATE: 4/10/99	DATE REPORTED: 4/10/99
SPILL TIME: 13.50	TIME REPORTED: 14:53

MATERIAL SPILLED: DIELECTRIC FLUID	AMOUNT SPILLED: 2 G
MATERIAL CLASS: 1	AMOUNT RECOVERED: 0 G

CAUSE OF SPILL:	EQUIPMENT FAILURE
RESOURCE AFFECTED:	ON LAND
WATERBODY AFFECTED:	
SOURCE OF SPILL:	COMMERCIAL/INDUSTRIAL
REPORTED BY:	02

CALLER REMARKS:
LEAKING FEEDER CON ED 124147 FEEDER IS 18M34 SAMPLE TAKEN CLEAN UP POSS PRIOR TO SAMPLE RESULTS IF PPM IS 50 - 499

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR:	
SPILL CONTACT: CALLER	TELEPHONE: () -

SPILLER: CON ED	
ADDRESS: 4 IRVING PLACE MANHATTAN, NY 10003-	
SPILLER CONTACT: CALLER	TELEPHONE: () -

CALLER: BILL MURPHY	NOTIFIER: MR MARCY
AGENCY: CON EDISON	AGENCY: CON EDISON
TELEPHONE: (212) 580-6763	TELEPHONE: (212) 338-3352

LAST DEC UPDATE: 04/10/99	CLOSE DATE:
DOES CLEAN UP MEET STANDARDS? NO	PENALTY RECOMMENDED? NO
DEC REMARKS:	

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 21 **DIST/DIR:** 0 11 SW **MAP ID:** 15

NAME: LIBERTY STREET ADDRESS: LIBERTY ST / GREENWICH ST 2 WORLD TRD. CTR. NY NY NEW YORK CONTACT:	REV: / / ID1: 9414473 ID2: STATUS: CLOSED PHONE:
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SPILL DATE: 2/2/95	DATE REPORTED: 2/2/95
SPILL TIME: 08:00	TIME REPORTED: 19:25

MATERIAL SPILLED: DIESEL	AMOUNT SPILLED: 50 G
MATERIAL CLASS: 1	AMOUNT RECOVERED: 0 G

CAUSE OF SPILL:	HUMAN ERROR
RESOURCE AFFECTED:	IN SEWER
WATERBODY AFFECTED:	
SOURCE OF SPILL:	COMMERCIAL/INDUSTRIAL
REPORTED BY:	01

CALLER REMARKS:
FROM A 55 GALLON DRUM. SPILL WEST TO THE SEWER SYSTEM. CALLED PORT AUTHORITY POLICE. ONLY 15 -20' SIDEWALK SUSPECTED. TURNER CONSTRUCTION TOGETHER WITH PORT AUTHORITY IS CLEANING UP SPILL. DEP NOTIFI

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR: K. TANG	TELEPHONE:
SPILL CONTACT:	

SPILLER: ATTARO	
ADDRESS: PORT AUTHORITY POLICE	

SPILLER CONTACT:	TELEPHONE: (212) 435-3541
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CALLER: ANNIE RICHA	NOTIFIER:
AGENCY: NYCDEP	AGENCY:
TELEPHONE: (718) 595-6777	TELEPHONE:

LAST DEC UPDATE:	CLOSE DATE: 2/02/95
DOES CLEAN UP MEET STANDARDS? YES	PENALTY RECOMMENDED? NO
DEC REMARKS:	

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 31 **DIST/DIR:** 0.12 SW **MAP ID:** 23

NAME: NEW YORK CITY FD ENG 10
ADDRESS: 124 LIBERTY ST
NEW YORK NY

REV: 12/04/96
ID1: 9610078
ID2:
STATUS: ACTIVE
PHONE:

CONTACT:

SPILL DATE: 11/12/96
SPILL TIME: 12:00

DATE REPORTED: 11/12/96
TIME REPORTED: 18:12

MATERIAL SPILLED: GASOLINE
MATERIAL CLASS: 1

AMOUNT SPILLED: 0 G
AMOUNT RECOVERED: 0 G

MATERIAL SPILLED: DIESEL
MATERIAL CLASS: 1

AMOUNT SPILLED: 0 G
AMOUNT RECOVERED: 0 G

CAUSE OF SPILL: TANK FAILURE
RESOURCE AFFECTED: ON LAND

WATERBODY AFFECTED:

SOURCE OF SPILL: NON-COMMERCIAL/INSTITUTIONAL
REPORTED BY: OTHER

CALLER REMARKS:

CALLER REPORTS DOING DRILLING IN AREA AND FOUND CONTAMINATED SOIL. CALLER BELIEVES GROUND WATER TO BE AFFECTED ALSO

REGION: 2

UST TRUST? NO

SPILL INVESTIGATOR: KRIMGOLD
SPILL CONTACT: LT LYNCH

TELEPHONE: (212) 570-4210

SPILLER: NEW YORK CITY DDC
ADDRESS:

SPILLER CONTACT: JERRY ALBERTI

TELEPHONE: (718) 391-1073

CALLER: ANDREW LEUNG
AGENCY: TAMS CONSULTING
TELEPHONE: (212) 867-1777

NOTIFIER: ANDREW LEUNG
AGENCY: TAMS CONSULTING
TELEPHONE: (212) 867-1777

LAST DEC UPDATE: 12/04/96
DOES CLEAN UP MEET STANDARDS? NO
DEC REMARKS:

CLOSE DATE:
PENALTY RECOMMENDED? NO

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 57 **DIST/DIR:** 0.12 SW **MAP ID:** 30

NAME: WEST ST AND LIBERTY ST	REV: 10/15/97
ADDRESS: WEST ST AND LIBERTY ST	ID1: 9708178
MANHATTAN NY	ID2:
CONTACT:	STATUS: ACTIVE
	PHONE:

SPILL DATE: 10/10/97	DATE REPORTED: 10/10/97
SPILL TIME: 21.00	TIME REPORTED: 21.59

MATERIAL SPILLED: HYDRAULIC OIL	AMOUNT SPILLED: 50 G
MATERIAL CLASS: 1	AMOUNT RECOVERED: 0 G

CAUSE OF SPILL:	EQUIPMENT FAILURE
RESOURCE AFFECTED:	ON LAND
WATERBODY AFFECTED:	
SOURCE OF SPILL:	COMMERCIAL VEHICLE
REPORTED BY:	OTHER

CALLER REMARKS:
CABLE PULLING TRUCK RUPTURED HYDROIC LINE SPILLING ONTO PAVEMENT. CONTAINED AND SPILL RESPONSE CREW IS ENROUTE.

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR: ENGELHARDT	TELEPHONE:
SPILL CONTACT:	

SPILLER: BUTLER-FLEET SERVICES	
ADDRESS:	

SPILLER CONTACT: JOE BELONGIS	TELEPHONE: (212) 714-2437
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CALLER: GLEN KATZ	NOTIFIER: JOE BELONGIS
AGENCY: MILRO ASSOCIATES	AGENCY: BUTLER-FLEET SERVICES
TELEPHONE: (516) 379-1500	TELEPHONE: (212) 714-2437

LAST DEC UPDATE: 10/15/97	CLOSE DATE:
DOES CLEAN UP MEET STANDARDS? NO	PENALTY RECOMMENDED? NO
DEC REMARKS:	

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 13

DIST/DIR: 0.13 NE

MAP ID: 11

NAME: BARCLAY ST & W BROADWAY
ADDRESS: BARCLAY ST & W BROADWAY
MANHATTAN NY

REV: 07/02/98
ID1: 8810172
ID2:
STATUS: ACTIVE
PHONE:

CONTACT:

SPILL DATE: 8/25/88
SPILL TIME: 12.00

DATE REPORTED: 5/4/95
TIME REPORTED: 12:00

MATERIAL SPILLED: DIELECTRIC FLUID
MATERIAL CLASS: 1

AMOUNT SPILLED: 3000 G
AMOUNT RECOVERED: 0 G

CAUSE OF SPILL: EQUIPMENT FAILURE
RESOURCE AFFECTED: ON LAND
WATERBODY AFFECTED:
SOURCE OF SPILL: COMMERCIAL/INDUSTRIAL
REPORTED BY: 01
CALLER REMARKS:
REPORTED BY CON ED AS REQUIRED UNDER CONSENT ORDER.

REGION: 2

UST TRUST? NO

SPILL INVESTIGATOR: ENGELHARDT
SPILL CONTACT:

TELEPHONE:

SPILLER: CON ED
ADDRESS:

SPILLER CONTACT:

TELEPHONE:

CALLER:
AGENCY:
TELEPHONE:

NOTIFIER:
AGENCY: CON ED
TELEPHONE:

LAST DEC UPDATE: 07/02/98
DOES CLEAN UP MEET STANDARDS? NO
DEC REMARKS:

CLOSE DATE:
PENALTY RECOMMENDED? NO

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 17

DIST/DIR: 0.13 NE

MAP ID: 14

NAME: CON ED SUB STATION
ADDRESS: 66 BARCLAY ST
MANHATTAN NY

REV: 05/02/96
ID1: 9600536
ID2:
STATUS: ACTIVE
PHONE:

CONTACT:

SPILL DATE: 4/11/96
SPILL TIME: 14 56

DATE REPORTED: 4/11/96
TIME REPORTED: 16:10

MATERIAL SPILLED: D-2
MATERIAL CLASS: 1

AMOUNT SPILLED: 1 G
AMOUNT RECOVERED: 0 G

CAUSE OF SPILL: EQUIPMENT FAILURE
RESOURCE AFFECTED: ON LAND
WATERBODY AFFECTED:
SOURCE OF SPILL: COMMERCIAL/INDUSTRIAL
REPORTED BY: 01
CALLER REMARKS:
1/2 GAL DIE ELEGTRIC FLUID SPILLED AND IS CONTAINED

REGION: 2

UST TRUST? NO

SPILL INVESTIGATOR: ENGELHARDT
SPILL CONTACT: JOE DEVOTI

TELEPHONE: (212) 580-6763

SPILLER: CON EDISON
ADDRESS: 4 IRVING PLACE
NEW YORK, NY 10003-
SPILLER CONTACT: LISA PRIMEGGIA

TELEPHONE: (212) 580-6763

CALLER: JOE DEVOTI
AGENCY: CON EDISON
TELEPHONE: (212) 580-6763

NOTIFIER: MR BRYAN
AGENCY: CON EDISON
TELEPHONE: (212) 580-6763

LAST DEC UPDATE: 05/02/96
DOES CLEAN UP MEET STANDARDS? NO
DEC REMARKS:

CLOSE DATE:
PENALTY RECOMMENDED? NO

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 18

DIST/DIR: 0.13 NE

MAP ID: 14

NAME: FEEDER 38M11
ADDRESS: 66 BARKLAY ST
MANHATTAN NY

REV: 04/16/98
ID1: 9601221
ID2:
STATUS: ACTIVE
PHONE:

CONTACT:

SPILL DATE: 4/24/96
SPILL TIME: 10:30

DATE REPORTED: 4/24/96
TIME REPORTED: 12 30

MATERIAL SPILLED: DIELECTRIC FLUID
MATERIAL CLASS: 1

AMOUNT SPILLED: 1 G
AMOUNT RECOVERED: 1 G

CAUSE OF SPILL: EQUIPMENT FAILURE
RESOURCE AFFECTED: ON LAND
WATERBODY AFFECTED:
SOURCE OF SPILL: COMMERCIAL/INDUSTRIAL
REPORTED BY: 01

CALLER REMARKS:

FEDDER #38M11 B-PHASE POT HEAD IS WET AND DRIPPING 1 DROP PER DAY ONTO BLUE STONE CLEAN UP TO BE SCHEDULED -
ABSORBANT PADS BEING USED TO CONTAIN WETNESS ON POT HEAD

REGION: 2

UST TRUST? NO

SPILL INVESTIGATOR: O CONNELL
SPILL CONTACT: CALLER

TELEPHONE: (212) 580-6763

SPILLER: CON EDISON
ADDRESS: 4 IRVING PLACE
NEW YORK, NY 10003-

SPILLER CONTACT: LISA PRIMEGGIA

TELEPHONE: (212) 560-6763

CALLER: TIM SOLICH
AGENCY: CON ED
TELEPHONE: (212) 580-6763

NOTIFIER: MISS MARKS
AGENCY: CON EDISON
TELEPHONE: (212) 338-4028

LAST DEC UPDATE: 04/16/98
DOES CLEAN UP MEET STANDARDS? NO
DEC REMARKS:

CLOSE DATE:
PENALTY RECOMMENDED? NO

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 19 **DIST/DIR:** 0.13 NE **MAP ID:** 14

NAME: FEEDER 38M13 ADDRESS: 66 BARCKLEY ST MANHATTAN NY	REV: 02/17/00 ID1: 9911353 ID2: STATUS: ACTIVE PHONE:
CONTACT:	

SPILL DATE: 12/28/99	DATE REPORTED: 12/28/99
SPILL TIME: 11:10	TIME REPORTED: 12:57

MATERIAL SPILLED: DIELECTRIC FLUID	AMOUNT SPILLED: 1 G
MATERIAL CLASS: 1	AMOUNT RECOVERED: 0 G

CAUSE OF SPILL:	EQUIPMENT FAILURE
RESOURCE AFFECTED:	ON LAND
WATERBODY AFFECTED:	
SOURCE OF SPILL:	COMMERCIAL INDUSTRIAL
REPORTED BY:	01

CALLER REMARKS:
CALLER REPORTED 2 OZ. SPILL ON BLUESTONE. CON ED #129412

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR: COMENALE		
SPILL CONTACT: CALLER		TELEPHONE: () -

SPILLER: CON ED		
ADDRESS: 4 IRVING PL		
NEW YORK, NY		
SPILLER CONTACT: STEVEN ROMERO		TELEPHONE: (212) 580-6763

CALLER: STEVE ROMERO	NOTIFIER:
AGENCY: CON EDISON	AGENCY:
TELEPHONE: (212) 580-6763	TELEPHONE:

LAST DEC UPDATE: 12/29/99	CLOSE DATE:
DOES CLEAN UP MEET STANDARDS? NO	PENALTY RECOMMENDED? NO
DEC REMARKS:	

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 22

DIST/DIR: 0.13 NE

MAP ID: 14

NAME: MANHOLE # 61027
ADDRESS: 66 BARKELY ST
MANHATTEN NY
NEW YORK

REV: 06/27/00
ID1: 0003719
ID2:
STATUS: ACTIVE
PHONE:

CONTACT:

SPILL DATE: 06/26/00
SPILL TIME: 14:45

DATE REPORTED: 06/26/00
TIME REPORTED: 16:43

MATERIAL SPILLED: 0066
MATERIAL CLASS: P

AMOUNT SPILLED: 5 G
AMOUNT RECOVERED: 0 G

CAUSE OF SPILL: UNKNOWN
RESOURCE AFFECTED: ON LAND
WATERBODY AFFECTED:
SOURCE OF SPILL: UNKNOWN
REPORTED BY: AFFECTED PERSONS
CALLER REMARKS:

REGION: 2

UST TRUST? NO

SPILL INVESTIGATOR: O CONNELL
SPILL CONTACT: BRAIN JOYCE

TELEPHONE: (212) 580-6763

SPILLER: UNKNOWN
ADDRESS:

SPILLER CONTACT:

TELEPHONE: () -

CALLER:
AGENCY:
TELEPHONE:

NOTIFIER:
AGENCY:
TELEPHONE:

LAST DEC UPDATE: 06/27/00
DOES CLEAN UP MEET STANDARDS? NO
DEC REMARKS:

CLOSE DATE:
PENALTY RECOMMENDED? NO

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 36

DIST/DIR: 0.13 NE

MAP ID: 14

NAME: TRADE CENTER
ADDRESS: 66 BARCLAY STREET
MANHATTAN NY

REV: 07/16/98
ID1: 9706616
ID2:
STATUS: CLOSED
PHONE:

CONTACT:

SPILL DATE: 9/3/97
SPILL TIME: 10.15

DATE REPORTED: 9/3/97
TIME REPORTED: 11.10

MATERIAL SPILLED: NON PCB OIL
MATERIAL CLASS: 1

AMOUNT SPILLED: -1 G
AMOUNT RECOVERED: 0 G

CAUSE OF SPILL: EQUIPMENT FAILURE
RESOURCE AFFECTED: ON LAND
WATERBODY AFFECTED:
SOURCE OF SPILL: COMMERCIAL/INDUSTRIAL
REPORTED BY: 01
CALLER REMARKS:
CON ED REPORTS FAILURE OF A FEEDER LINE CAUSED THE LEAK.

REGION: 2

UST TRUST? NO

SPILL INVESTIGATOR: ENGELHARDT
SPILL CONTACT: SAME

TELEPHONE:

SPILLER: CON EDISON
ADDRESS: 128 WEST END AV
NEW YORK, NY 10023-

SPILLER CONTACT: SAME

TELEPHONE:

CALLER: STEVE ROMERO
AGENCY: CON ED
TELEPHONE: (212) 580-6763

NOTIFIER: MR ABLE
AGENCY: CON ED
TELEPHONE: (212) 338-4029

LAST DEC UPDATE: 07/16/98
DOES CLEAN UP MEET STANDARDS? NO
DEC REMARKS:

CLOSE DATE: 07/16/98
PENALTY RECOMMENDED? NO

7/16/98 E2MIS REPORT INDICATES 2 OZ. SPILLED CONTAINED WITH PADS AND PAN

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 42 **DIST/DIR:** 0.13 NE **MAP ID:** 14

NAME: TRADE CENTER SUB STATION	REV: 02/25/99
ADDRESS: 66 BARCLAY ST	ID1: 9814191
MANHATTAN NY	ID2:
	STATUS: ACTIVE
CONTACT:	PHONE:

SPILL DATE: 2/25/99	DATE REPORTED: 2/25/99
SPILL TIME: 08:05	TIME REPORTED: 09:23

MATERIAL SPILLED: DIELECTRIC FLUID	AMOUNT SPILLED: 1 G
MATERIAL CLASS: 1	AMOUNT RECOVERED: 0 G

CAUSE OF SPILL:	EQUIPMENT FAILURE
RESOURCE AFFECTED:	ON LAND
WATERBODY AFFECTED:	
SOURCE OF SPILL:	COMMERCIAL/INDUSTRIAL
REPORTED BY:	01

CALLER REMARKS:
1 OUNCE SPILLED ONTO CONCRETE-REPAIS AND CLEANUP TO FOLLOW-LAB SAMPLES WERE TAKEN. CON ED #123281

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR: O CONNELL	
SPILL CONTACT: TONY CONSTANTINE	TELEPHONE: (212) 580-6763

SPILLER: TRADE CENTER SUB STATION	
ADDRESS: 66 BARCLAY ST	
MANHATTAN.	
SPILLER CONTACT: TONY CONSTANTINE	TELEPHONE: (212) 580-6763

CALLER: TONY CONSTANTINE	NOTIFIER: TONY CONSTANTINE
AGENCY: CON EDISON	AGENCY: CON ED
TELEPHONE: (212) 580-6763	TELEPHONE: (212) 580-6763

LAST DEC UPDATE: 02/25/99	CLOSE DATE: /
DOES CLEAN UP MEET STANDARDS? NO	PENALTY RECOMMENDED? NO
DEC REMARKS:	

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 39

DIST/DIR: 0 13 NE

MAP ID: 14

NAME: TRADE CENTER SUB STATION
ADDRESS: 66 BARCLAY ST
MANHATTAN NY

REV: 06/28/96
ID1: 9603838
ID2:
STATUS: ACTIVE
PHONE:

CONTACT:

SPILL DATE: 6/20/96
SPILL TIME: 13:15

DATE REPORTED: 6/20/96
TIME REPORTED: 13:50

MATERIAL SPILLED: TRANSFORMER OIL
MATERIAL CLASS: 1

AMOUNT SPILLED: 10 G
AMOUNT RECOVERED: 10 G

CAUSE OF SPILL: EQUIPMENT FAILURE
RESOURCE AFFECTED: ON LAND
WATERBODY AFFECTED:
SOURCE OF SPILL: COMMERCIAL/INDUSTRIAL
REPORTED BY: 01

CALLER REMARKS:

TRANSFORMER 1 SELECTOR COMPT DRAIN VALVE LEAKED ONTO BLUE STONE - SPILL CONTAINED WITH ABSORBANTS - SPILL SHOULD BE CLEANED UP BY 16:00HRS

REGION: 2

UST TRUST? NO

SPILL INVESTIGATOR: ENGELHARDT
SPILL CONTACT: TOM OBRIEN

TELEPHONE: (212) 460-3839

SPILLER: CON ED
ADDRESS: 4 IRVING PLACE
MANHATTAN, NY 10003-

SPILLER CONTACT: RICHARD ROACH

TELEPHONE: (212) 580-6764

CALLER: TIM SOLICH
AGENCY: CON ED
TELEPHONE: (212) 580-6763

NOTIFIER: TOM OBRIEN
AGENCY: CON ED
TELEPHONE: (212) 460-3839

LAST DEC UPDATE: 06/28/96
DOES CLEAN UP MEET STANDARDS? NO
DEC REMARKS:

CLOSE DATE: /
PENALTY RECOMMENDED? NO

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 40

DIST/DIR: 0.13 NE

MAP ID: 14

NAME: TRADE CENTER SUB STATION
ADDRESS: 66 BARCLAY ST
MANHATTAN NY

REV: 02/16/99
ID1: 9813899
ID2:
STATUS: ACTIVE
PHONE:

CONTACT:

SPILL DATE: 2/16/99
SPILL TIME: 13 05

DATE REPORTED: 2/16/99
TIME REPORTED: 14 18

MATERIAL SPILLED: TRANSFORMER OIL
MATERIAL CLASS: 1

AMOUNT SPILLED: 1 G
AMOUNT RECOVERED: 0 G

CAUSE OF SPILL: EQUIPMENT FAILURE
RESOURCE AFFECTED: ON LAND
WATERBODY AFFECTED:
SOURCE OF SPILL: COMMERCIAL/INDUSTRIAL
REPORTED BY: 01
CALLER REMARKS:
LEAK FROM THE PUMP CONTAINED TO CONCRETE PAD REF#123056

REGION: 2

UST TRUST? NO

SPILL INVESTIGATOR: O CONNELL
SPILL CONTACT: STEPHEN CRIBBIN

TELEPHONE: (212) 580-8576

SPILLER: CON ED
ADDRESS: 4 IRVING PLACE
MANHATTAN, NY 10003-

SPILLER CONTACT: CALLER

TELEPHONE: (212) 580-6763

CALLER: STEPHEN CRIBBIN
AGENCY: CON ED
TELEPHONE: (212) 580-6763

NOTIFIER: MR CROWE
AGENCY: CON EDISON
TELEPHONE:

LAST DEC UPDATE: 02/16/99
DOES CLEAN UP MEET STANDARDS? NO
DEC REMARKS:

CLOSE DATE:
PENALTY RECOMMENDED? NO

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 41

DIST/DIR: 0.13 NE

MAP ID: 14

NAME: TRADE CENTER SUB STATION
ADDRESS: 66 BARKLEY ST
MANHATTEN NY

REV: 01/08/99
ID1: 9811342
ID2:
STATUS: ACTIVE
PHONE:

CONTACT:

SPILL DATE: 12/9/98
SPILL TIME: 10:10

DATE REPORTED: 12/9/98
TIME REPORTED: 11:20

MATERIAL SPILLED: TRANSFORMER OIL
MATERIAL CLASS: 1

AMOUNT SPILLED: 1 G
AMOUNT RECOVERED: 1 G

CAUSE OF SPILL: EQUIPMENT FAILURE
RESOURCE AFFECTED: ON LAND
WATERBODY AFFECTED:
SOURCE OF SPILL: COMMERCIAL/INDUSTRIAL
REPORTED BY: 01

CALLER REMARKS:

FROM A DRAIN PULG ON #8 TRANSFORMER ABOUT 2OZ S. REF #121826

REGION: 2

UST TRUST? NO

SPILL INVESTIGATOR: ENGELHARDT
SPILL CONTACT: RICHARD ROACH

TELEPHONE: (212) 580-6763

SPILLER: CON ED
ADDRESS: 4 IRVING PL
NEW YORK, NY

SPILLER CONTACT: TONY CONSTANTINE

TELEPHONE: (212) 580-6763

CALLER: RICHARD ROACH
AGENCY: CON EDISON
TELEPHONE: (212) 580-6763

NOTIFIER: JOHN HEFFERNEN
AGENCY: CON ED
TELEPHONE:

LAST DEC UPDATE: 01/08/99
DOES CLEAN UP MEET STANDARDS? NO
DEC REMARKS:

CLOSE DATE:
PENALTY RECOMMENDED? NO

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 44

DIST/DIR: 0.13 NE

MAP ID: 14

NAME: TRADE CENTER SUB STATION
ADDRESS: 66 BARCLAY ST
MANHATTAN NY

REV: 02/09/00
ID1: 9906461
ID2:
STATUS: ACTIVE
PHONE:

CONTACT:

SPILL DATE: 8/31/99
SPILL TIME: 08:35

DATE REPORTED: 8/31/99
TIME REPORTED: 10:21

MATERIAL SPILLED: HYDRAULIC OIL
MATERIAL CLASS: 1

AMOUNT SPILLED: 0 G
AMOUNT RECOVERED: 0 G

CAUSE OF SPILL: EQUIPMENT FAILURE
RESOURCE AFFECTED: ON LAND
WATERBODY AFFECTED:
SOURCE OF SPILL: COMMERCIAL/INDUSTRIAL
REPORTED BY: 01

CALLER REMARKS:

2 OUNCE LEAK FROM HOSE UNDER AN EQUIPMENT LIFT-SPILL IS CONTAINED CON ED #127511

REGION: 2

UST TRUST? NO

SPILL INVESTIGATOR: O CONNELL
SPILL CONTACT: MARK SCHLEGEL

TELEPHONE: (212) 580-6763

SPILLER: TRADE CENTER SUB STATION
ADDRESS: 66 BARCLAY ST
MANHATTAN

SPILLER CONTACT: TONY CONSTANTINE

TELEPHONE: (212) 580-6763

CALLER: MARK SCHLEGEL
AGENCY: CON ED
TELEPHONE: 212) 580-6763

NOTIFIER: MARK SCHLEGEL
AGENCY: CON ED
TELEPHONE: (212) 580-6763

LAST DEC UPDATE: 08/31/99

DOES CLEAN UP MEET STANDARDS? NO

DEC REMARKS:

CLOSE DATE:

PENALTY RECOMMENDED? NO

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 46

DIST/DIR: 0.13 NE

MAP ID: 14

NAME: TRADE CENTER SUB STATION
ADDRESS: 66 BARCLAY ST
MANHATTAN NY

REV: 08/20/98
ID1: 9804562
ID2:
STATUS: CLOSED
PHONE:

CONTACT:

SPILL DATE: 7/10/98
SPILL TIME: 23:40

DATE REPORTED: 7/11/98
TIME REPORTED: 02:36

MATERIAL SPILLED: TRANSFORMER OIL
MATERIAL CLASS: 1

AMOUNT SPILLED: 5 G
AMOUNT RECOVERED: 0 G

CAUSE OF SPILL: EQUIPMENT FAILURE
RESOURCE AFFECTED: ON LAND
WATERBODY AFFECTED:
SOURCE OF SPILL: COMMERCIAL/INDUSTRIAL
REPORTED BY: 01
CALLER REMARKS:

TRANSFORMER # 8 AT TRADE CENTER LEAKED ABOUT 5 OZ OIL ONTO SOIL PART TIGHTENED UP AND RECOVERY IN PROCESS.

REGION: 2

UST TRUST? NO

SPILL INVESTIGATOR: ENGELHARDT
SPILL CONTACT: MIKE CESARE

TELEPHONE: (212) 580-6763

SPILLER: CON EDISON
ADDRESS: 4 IRVING ST
MANHATTEN, NY 10001-

SPILLER CONTACT: MIKE CESARE

TELEPHONE: (212) 580-6763

CALLER: MIKE CESARE
AGENCY: CON EDISON
TELEPHONE: (212) 580-6763

NOTIFIER: BOSZE
AGENCY: CON EDISON
TELEPHONE: (212) 580-6763

LAST DEC UPDATE: 08/20/98

CLOSE DATE: 08/20/98

DOES CLEAN UP MEET STANDARDS? NO

PENALTY RECOMMENDED? NO

DEC REMARKS:

8/3/98 E-MAIL FROM ERT LUKSHIDES RESPONDING TO PREVIOUS INQUIRY PCB CONCENTRATION? 10 PPM PCB SPILL
CLEANED? CLEAN UP COMPLETE 30 JUL 98 @ 1400 HOW? TRANSFORMER WAS REPLACED, CONCRETE PAD STEAMED AND
BLUESTONE REMOVED.

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 43 **DIST/DIR:** 0.13 NE **MAP ID:** 14

NAME: TRADE CENTER SUB STATION
ADDRESS: 66 BARCLAY ST
MANHATTAN NY
NEW YORK

REV: 10/26/99
ID1: 9909027
ID2:
STATUS: ACTIVE
PHONE:

CONTACT:

SPILL DATE: 10/25/99
SPILL TIME: 11 00

DATE REPORTED: 10/25/99
TIME REPORTED: 12.32

MATERIAL SPILLED: DIELECTRIC FLUID
MATERIAL CLASS:

AMOUNT SPILLED: 1 G
AMOUNT RECOVERED: 0 G

CAUSE OF SPILL: EQUIPMENT FAILURE
RESOURCE AFFECTED: ON LAND
WATERBODY AFFECTED:
SOURCE OF SPILL: NON-COMMERCIAL/INSTITUTIONAL
REPORTED BY: 01

CALLER REMARKS:
CONNECTION FAILED TO PUMP #2. CON ED 128636.

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR: ENGELHARDT
SPILL CONTACT: CALLER

TELEPHONE: () -

SPILLER: CON ED
ADDRESS: 4 IRVING PL
MANHATTAN, NY 10003-

SPILLER CONTACT: CALLER

TELEPHONE: () -

CALLER: FRANK MASSERIA
AGENCY: CON EDISON
TELEPHONE: (212) 580-6763

NOTIFIER:
AGENCY:
TELEPHONE:

LAST DEC UPDATE: 10/26/99
DOES CLEAN UP MEET STANDARDS? NO
DEC REMARKS:

CLOSE DATE:
PENALTY RECOMMENDED? NO

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 45

DIST/DIR: 0.13 NE

MAP ID: 14

NAME: TRADE CENTER SUB STATION
ADDRESS: WORLD TRADE CENTER
MANHATTEN NY

REV: 01/26/98
ID1: 9706554
ID2:
STATUS: CLOSED
PHONE:

CONTACT:

SPILL DATE: 9/1/97
SPILL TIME: 18:00

DATE REPORTED: 9/1/97
TIME REPORTED: 19:39

MATERIAL SPILLED: DIELECTRIC FLUID
MATERIAL CLASS: 1

AMOUNT SPILLED: 2 G
AMOUNT RECOVERED: 0 G

CAUSE OF SPILL: EQUIPMENT FAILURE
RESOURCE AFFECTED: ON LAND
WATERBODY AFFECTED:
SOURCE OF SPILL: COMMERCIAL/INDUSTRIAL
REPORTED BY: 01

CALLER REMARKS:

TRANSFORMER PRIMARY POT HEAD LEAKED OIL ON CEMENT AND BLUE STONE CLEAN CREW HAS BEEN CONTACTED

REGION: 2

UST TRUST? NO

SPILL INVESTIGATOR: ENGELHARDT
SPILL CONTACT:

TELEPHONE:

SPILLER: CON ED
ADDRESS: 4 IRVING PLACE
MANHATTAN, NY 10003-
SPILLER CONTACT: LISA PRIMEGGIA

TELEPHONE: (212) 580-6764

CALLER: LISA PRIMEGGIA
AGENCY: CON ED
TELEPHONE: (212) 580-6763

NOTIFIER: LISA PRIMEGGIA
AGENCY: CON ED
TELEPHONE: (212) 580-6763

LAST DEC UPDATE: 01/26/98

CLOSE DATE: 09/02/97

DOES CLEAN UP MEET STANDARDS? NO

PENALTY RECOMMENDED? NO

DEC REMARKS:

CLEANED BY CE

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 53

DIST/DIR: 0.13 NE

MAP ID: 14

NAME: TRADE CENTER SUBSTATION
ADDRESS: BARKLEY ST
NEW YORK CITY NY

REV: 10/22/98
ID1: 9808989
ID2:
STATUS: ACTIVE
PHONE:

CONTACT:

SPILL DATE: 10/19/98
SPILL TIME: 14:25

DATE REPORTED: 10/19/98
TIME REPORTED: 16:51

MATERIAL SPILLED: TRANSFORMER OIL
MATERIAL CLASS: 1

AMOUNT SPILLED: 1 G
AMOUNT RECOVERED: 1 G

CAUSE OF SPILL: EQUIPMENT FAILURE
RESOURCE AFFECTED: ON LAND
WATERBODY AFFECTED:
SOURCE OF SPILL: COMMERCIAL/INDUSTRIAL
REPORTED BY: 01

CALLER REMARKS:

TRANFORMER FAILURE AT ABOVE LOCATION. MATERIAL BELIEVED TO BE LESS THAN 1 OUNCE AND ALL WAS RECOVERED.
TRANSFORMER #8 CON EDISON #120620. NO CALL BACK REQUESTED

REGION: 2

UST TRUST? NO

SPILL INVESTIGATOR: ENGELHARDT
SPILL CONTACT: STEVE ROMERO

TELEPHONE: (212) 580-6763

SPILLER: CON EDISON
ADDRESS: 4 IRVING PLACE
MANHATTEN, NY

SPILLER CONTACT: STEVE ROMERO

TELEPHONE: (212) 580-6763

CALLER: STEVE ROMERO
AGENCY: CON EDISON
TELEPHONE: (212) 580-6763

NOTIFIER: MR BRUNS
AGENCY: CON EDISON
TELEPHONE: (212) 338-3352

LAST DEC UPDATE: 10/22/98
DOES CLEAN UP MEET STANDARDS? NO
DEC REMARKS:

CLOSE DATE:
PENALTY RECOMMENDED? NO

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 48 **DIST/DIR:** 0.13 NE **MAP ID:** 14

NAME: TRADE CENTER SUBSTATION
ADDRESS: TRADE CENTER SUBSTATION
MANHATTAN NY

REV: 10/14/97
ID1: 9707175
ID2:
STATUS: CLOSED
PHONE:

CONTACT:

SPILL DATE: 9/17/97 **DATE REPORTED:** 9/17/97
SPILL TIME: 10:35 **TIME REPORTED:** 12:45

MATERIAL SPILLED: DIELECTRIC FLUID **AMOUNT SPILLED:** 1 G
MATERIAL CLASS: 1 **AMOUNT RECOVERED:** 0 G

CAUSE OF SPILL: EQUIPMENT FAILURE
RESOURCE AFFECTED: ON LAND
WATERBODY AFFECTED:
SOURCE OF SPILL: NON-COMMERCIAL/INSTITUTIONAL
REPORTED BY: 01
CALLER REMARKS:
POT HEAD LEAKING / 1 OZ.

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR: O CONNELL
SPILL CONTACT: CALLER

TELEPHONE: (212) 580-6763

SPILLER: CON ED
ADDRESS: 4 IRVING PLACE
MANHATTAN, NY 10003-

SPILLER CONTACT:

TELEPHONE: (212) 580-6764

CALLER: MIKE CESARE
AGENCY: CON EDISON
TELEPHONE: (212) 580-6763

NOTIFIER: MIKE CESARE
AGENCY: CON EDISON
TELEPHONE: (212) 580-6763

LAST DEC UPDATE: 10/14/97
DOES CLEAN UP MEET STANDARDS? NO
DEC REMARKS:

CLOSE DATE: 10/14/97
PENALTY RECOMMENDED? NO

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 49 **DIST/DIR:** 0.13 NE **MAP ID:** 14

NAME: TRADE CENTER SUBSTATION	REV: 05/17/99
ADDRESS: 66 BARCLAY ST	ID1: 9901812
MANHATTAN NY	ID2:
NEW YORK	STATUS: ACTIVE
CONTACT:	PHONE:

SPILL DATE: 5/17/99	DATE REPORTED: 5/17/99
SPILL TIME: 08:40	TIME REPORTED: 10:05

MATERIAL SPILLED: TRANSFORMER OIL	AMOUNT SPILLED: 0 G
MATERIAL CLASS: 1	AMOUNT RECOVERED: 0 G

CAUSE OF SPILL: EQUIPMENT FAILURE
RESOURCE AFFECTED: ON LAND
WATERBODY AFFECTED:
SOURCE OF SPILL: COMMERCIAL/INDUSTRIAL
REPORTED BY: 01
CALLER REMARKS:
1 OUNCE ONTO CONCRETE PAD-HAS BEEN CLEANED UP-CON ED #124922

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR: ENGELHARDT		
SPILL CONTACT: MIKE CESARE		TELEPHONE: (212) 580-6763

SPILLER: TRADE CENTER SUBSTATION		
ADDRESS: 66 BARCLAY ST		
MANHATTAN.		
SPILLER CONTACT: MIKE CESARE		TELEPHONE: (212) 580-6763

CALLER: MIKE CESARE	NOTIFIER: MIKE CESARE
AGENCY: CON EDISON	AGENCY: CON EDISON
TELEPHONE: (212) 580-6763	TELEPHONE: (212) 580-6763

LAST DEC UPDATE: 05/17/99	CLOSE DATE:
DOES CLEAN UP MEET STANDARDS? NO	PENALTY RECOMMENDED? NO
DEC REMARKS:	

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER NYC

STATE SPILLS SITE

SEARCH ID: 51 **DIST/DIR:** 0.13 NE **MAP ID:** 14

NAME: TRADE CENTER SUBSTATION ADDRESS: 66 BARCLAY ST MANHATTAN NY NEW YORK CONTACT:	REV: 06/07/99 ID1: 9902540 ID2: STATUS: ACTIVE PHONE:
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SPILL DATE: 6/4/99	DATE REPORTED: 6/4/99
SPILL TIME: 13:20	TIME REPORTED: 14:06

MATERIAL SPILLED: TRANSFORMER OIL	AMOUNT SPILLED: 1 G
MATERIAL CLASS: 1	AMOUNT RECOVERED: 1 G

CAUSE OF SPILL: EQUIPMENT FAILURE
RESOURCE AFFECTED: ON LAND
WATERBODY AFFECTED:
SOURCE OF SPILL: COMMERCIAL VEHICLE
REPORTED BY: 01

CALLER REMARKS:
LEAKED FROM HIGH VOLTAGE TEST SET-TRUCK #40777- CON ED #125332-UNKNOWN PCB COUNT-1/2OUNCE PRODUCT SPILLED WHICH WAS CLEANED UP-SAMPLE TAKEN

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR: ENGELHARDT SPILL CONTACT: STEVEN CRIBBIN	TELEPHONE: (212) 580-6763
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SPILLER: CON EDISON ADDRESS: 4 IRVING PLACE NEW YORK, NY 10003- SPILLER CONTACT: STEVE ROMERO	TELEPHONE: (212) 580-6763
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CALLER: STEVEN CRIBBIN AGENCY: CON EDISON TELEPHONE: (212) 580-6763	NOTIFIER: MR MCHUGH AGENCY: CON ED TELEPHONE: (212) 338-3352
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LAST DEC UPDATE: 06/07/99 DOES CLEAN UP MEET STANDARDS? NO DEC REMARKS:	CLOSE DATE: PENALTY RECOMMENDED? NO
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Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 52

DIST/DIR: 0.13 NE

MAP ID: 14

NAME: TRADE CENTER SUBSTATION
ADDRESS: 66 BARCLAY ST
MANHATTAN NY
NEW YORK

REV: 02/01/00
ID1: 9901876
ID2:
STATUS: ACTIVE
PHONE:

CONTACT:

SPILL DATE: 5/18/99
SPILL TIME: 10:40

DATE REPORTED: 5/18/99
TIME REPORTED: 12:29

MATERIAL SPILLED: DIELECTRIC FLUID
MATERIAL CLASS: 1

AMOUNT SPILLED: 0 G
AMOUNT RECOVERED: 0 G

CAUSE OF SPILL: EQUIPMENT FAILURE
RESOURCE AFFECTED: ON LAND
WATERBODY AFFECTED:
SOURCE OF SPILL: COMMERCIAL/INDUSTRIAL
REPORTED BY: 01

CALLER REMARKS:

TRANSFORMER LEAK IS CONTAINED TOTALLING 2 OZ. CLEAN UP PENDING LAB RESULTS AND REPAIR OF TRANSFORMER VALVE. CON ED 124-951

REGION: 2

UST TRUST? NO

SPILL INVESTIGATOR: ENGELHARDT
SPILL CONTACT: STEVEN CRIBBIN

TELEPHONE: (212) 580-6763

SPILLER: CON ED
ADDRESS: 4 IRVING PLACE
MANHATTAN, NY 10003-

SPILLER CONTACT: CALLER

TELEPHONE: () -

CALLER: STEVEN CRIBBIN
AGENCY: CON EDISON
TELEPHONE: (212) 580-6763

NOTIFIER: MR BOOMER
AGENCY: CON ED
TELEPHONE:

LAST DEC UPDATE: 05/19/99
DOES CLEAN UP MEET STANDARDS? NO
DEC REMARKS:

CLOSE DATE:
PENALTY RECOMMENDED? NO

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 54

DIST/DIR: 0.13 NE

MAP ID: 14

NAME: TRADE CTR SUBSTATION
ADDRESS: 66 BARCLAY ST
MANHATTAN NY

REV: 01/12/99
ID1: 9812419
ID2:
STATUS: ACTIVE
PHONE:

CONTACT:

SPILL DATE: 1/7/99
SPILL TIME: 11.00

DATE REPORTED: 1/7/99
TIME REPORTED: 12.28

MATERIAL SPILLED: TRANSFORMER OIL
MATERIAL CLASS: 1

AMOUNT SPILLED: 1 G
AMOUNT RECOVERED: 0 G

CAUSE OF SPILL: EQUIPMENT FAILURE
RESOURCE AFFECTED: ON LAND
WATERBODY AFFECTED:
SOURCE OF SPILL: COMMERCIAL/INDUSTRIAL
REPORTED BY: 01
CALLER REMARKS:

CON EDISON #1122300 TRANSFORMER #1 DRAINPLUG LEAKED ON BLUESTONE.

REGION: 2

UST TRUST? NO

SPILL INVESTIGATOR: O CONNELL
SPILL CONTACT:

TELEPHONE: () -

SPILLER: CON EDISON
ADDRESS: 4 IRVING PLACE
MANHATTAN, NY 10003-

SPILLER CONTACT: LISA PRIMEGGIA

TELEPHONE: (212) 580-6764

CALLER: LISA PRIMEGGIA
AGENCY: CON EDISON
TELEPHONE: (212) 580-6763

NOTIFIER: MR CARROLL
AGENCY: CON ED
TELEPHONE: (212) 580-6764

LAST DEC UPDATE: 01/12/99
DOES CLEAN UP MEET STANDARDS? NO
DEC REMARKS:

CLOSE DATE: /
PENALTY RECOMMENDED? NO

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 58 **DIST/DIR:** 0.13 NE **MAP ID:** 14

NAME: WORLD TRADE CENTER SS	REV: 08/27/98
ADDRESS: 66 BARCLAY ST	ID1: 9804167
MANHATTAN NY	ID2:
CONTACT:	STATUS: CLOSED
	PHONE:

SPILL DATE: 7/2/98	DATE REPORTED: 7/2/98
SPILL TIME: 08.20	TIME REPORTED: 09:56

MATERIAL SPILLED: DIELECTRIC FLUID	AMOUNT SPILLED: 0 G
MATERIAL CLASS: 1	AMOUNT RECOVERED: 0 G

CAUSE OF SPILL:	EQUIPMENT FAILURE
RESOURCE AFFECTED:	ON LAND
WATERBODY AFFECTED:	
SOURCE OF SPILL:	COMMERCIAL/INDUSTRIAL
REPORTED BY:	01

CALLER REMARKS:
CALLER REPORTING A LEAK IN OIL PRESSURE SWITCH. THIS WILL BE CORRECTED ON 7/3/98

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR: O CONNELL	TELEPHONE:
SPILL CONTACT:	

SPILLER: CON ED	TELEPHONE: (212) 580-6763
ADDRESS: 4 IRVING PL	
MANHATTAN, NY 10001-	
SPILLER CONTACT: MIKE CESARE	

CALLER: MIKE CESARE	NOTIFIER: BOSE
AGENCY: CON EDISON	AGENCY: CON ED
TELEPHONE: (212) 580-6763	TELEPHONE: (212) 580-6763

LAST DEC UPDATE: 08/27/98	CLOSE DATE: 08/27/98
DOES CLEAN UP MEET STANDARDS? NO	PENALTY RECOMMENDED? NO

DEC REMARKS:
8/27/98: UPDATE FROM ERT PEREZ - E2MIS # 118007 RESP ORGANIZATION TRADE CENTER SUBSTATION FINAL LEAK AMOUNT 2 DROPS ON CEMENT. THE REST COLLECTED IN PAN. CLEANUP COMPLETED ON 7/2/98. LEAKY VALVE TIGHTENED ON 7/29/98.

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 59

DIST/DIR: 0 13 NE

MAP ID: 14

NAME: WORLD TRADE CTR SUB-STAT.
ADDRESS: BARCLEY ST
MANHATTAN NY

REV: 06/27/96
ID1: 9602772
ID2:
STATUS: ACTIVE
PHONE:

CONTACT:

SPILL DATE: 5/28/96
SPILL TIME: 12:15

DATE REPORTED: 5/28/96
TIME REPORTED: 13:38

MATERIAL SPILLED: DIELECTRIC FLUID
MATERIAL CLASS: 1

AMOUNT SPILLED: 1 G
AMOUNT RECOVERED: 1 G

CAUSE OF SPILL: EQUIPMENT FAILURE
RESOURCE AFFECTED: ON LAND
WATERBODY AFFECTED:
SOURCE OF SPILL: COMMERCIAL/INDUSTRIAL
REPORTED BY: 01
CALLER REMARKS:

CALLER STATED THERE IS A LEAKY PIECE OF EQUIPMENT ON BLUE STONE SCHEDULED FOR CLEAN UP AT 1600

REGION: 2

UST TRUST? NO

SPILL INVESTIGATOR: ENGELHARDT
SPILL CONTACT: MR PELLEGRINO

TELEPHONE: (212) 460-3849

SPILLER: WORLD TRADE CTR SUB-STAT
ADDRESS: BARCLEY ST
MANHATTAN, NY

SPILLER CONTACT: MR PELLEGRINO

TELEPHONE: (212) 460-3849

CALLER: STEVE ROMERO
AGENCY: CON ED
TELEPHONE: (212) 580-6763

NOTIFIER: MR PELLEGRINO
AGENCY: CON ED
TELEPHONE: (212) 460-3849

LAST DEC UPDATE: 06/27/96
DOES CLEAN UP MEET STANDARDS? NO
DEC REMARKS:

CLOSE DATE:
PENALTY RECOMMENDED? NO

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 61 **DIST/DIR:** 0.14 NE **MAP ID:** 12

NAME: ADDRESS: BARCLAY BET CHURCH/BROADW MANHATTAN NY	REV: 01/28/99 ID1: 9813200 ID2: STATUS: ACTIVE PHONE:
CONTACT:	

SPILL DATE: 1/27/99	DATE REPORTED: 1/27/99	
SPILL TIME: 15:19	TIME REPORTED: 16:12	

MATERIAL SPILLED: UNKNOWN MATERIAL	AMOUNT SPILLED: 0 G	
MATERIAL CLASS: 4	AMOUNT RECOVERED: 0 G	

CAUSE OF SPILL: UNKNOWN
RESOURCE AFFECTED: ON LAND
WATERBODY AFFECTED:
SOURCE OF SPILL: UNKNOWN
REPORTED BY: 09

CALLER REMARKS:
UNK PRODUCT - POSS OIL FROM UNK SOURCE - CON ED INVESTIGATING

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR: ENGELHARDT		
SPILL CONTACT: STEVE ROMERO	TELEPHONE: (212) 580-6763	

SPILLER: UNKNOWN
ADDRESS:

SPILLER CONTACT:	TELEPHONE: () -
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CALLER: STEVE ROMARO	NOTIFIER: STEVE ROMARO
AGENCY: CON ED	AGENCY: CON ED
TELEPHONE: (212) 580-6763	TELEPHONE: (212) 580-6763

LAST DEC UPDATE: 01/28/99	CLOSE DATE: /
DOES CLEAN UP MEET STANDARDS? NO	PENALTY RECOMMENDED? NO
DEC REMARKS:	

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 7 **DIST/DIR:** 0.14 NE **MAP ID:** 7

NAME: 81 BARCLY ST
ADDRESS: 81 BARCLY ST
MANHATTEN NY

REV: 06/03/98
ID1: 9611541
ID2:
STATUS: ACTIVE
PHONE:

CONTACT:

SPILL DATE: 12/19/96
SPILL TIME: 21.30

DATE REPORTED: 12/19/96
TIME REPORTED: 22.39

MATERIAL SPILLED: TRANSFORMER OIL
MATERIAL CLASS: 1

AMOUNT SPILLED: 0 G
AMOUNT RECOVERED: 0 G

CAUSE OF SPILL: EQUIPMENT FAILURE
RESOURCE AFFECTED: IN SEWER
WATERBODY AFFECTED:
SOURCE OF SPILL: COMMERCIAL/INDUSTRIAL
REPORTED BY: 01
CALLER REMARKS:

TRANSFORMER FAILED SOME OIL MAY HAVE GONE INTO SEWER CLEAN UP TO BE PLANNED

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR: O CONNELL
SPILL CONTACT:

TELEPHONE:

SPILLER: CON ED
ADDRESS: 4 IRVING PLACE
MANHATTAN, NY 10003-
SPILLER CONTACT: TIM SOILCH

TELEPHONE: (212) 580-6764

CALLER: PAT MCHUGH
AGENCY: CON ED
TELEPHONE: (212) 580-6763

NOTIFIER: PAT MCHUGH
AGENCY: CON ED
TELEPHONE: (212) 580-6763

LAST DEC UPDATE: 06/03/98

CLOSE DATE:

DOES CLEAN UP MEET STANDARDS? NO

PENALTY RECOMMENDED? NO

DEC REMARKS:

PCB CONTAINING OIL 49 PPM THEY CONTAINED 20 GLS IN THE VAULT THERE IS A SUMP PUMP IN THE VAULT SOME OIL MAY HAVE GONE INTO THE SEWER DEP WAS NOTIFIED (CON EDISON PAT MCHUGH) 10 49 - 11 03 12 25 - 12 30 HOT LINE 12 30 - 12 35 CON-ED

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 8 **DIST/DIR:** 0.14 NE **MAP ID:** 8

NAME: 90 CHURCH ST/US POSTAL SVC
ADDRESS: 90 CHURCH ST
NYC NY

REV: 08/16/95
ID1: 9106123
ID2:
STATUS: ACTIVE
PHONE:

CONTACT:

SPILL DATE: 9/3/91 **DATE REPORTED:** 9/7/91
SPILL TIME: 12:00 **TIME REPORTED:** 09:27

MATERIAL SPILLED: UNKNOWN PETROLEUM **AMOUNT SPILLED:** -1
MATERIAL CLASS: 1 **AMOUNT RECOVERED:** 0

MATERIAL SPILLED: ASBESTOS **AMOUNT SPILLED:** 0
MATERIAL CLASS: 2 **AMOUNT RECOVERED:** 0

CAUSE OF SPILL: UNKNOWN
RESOURCE AFFECTED: GROUNDWATER
WATERBODY AFFECTED:
SOURCE OF SPILL: NON-COMMERCIAL/INSTITUTIONAL
REPORTED BY: FEDERAL GOVERNMENT
CALLER REMARKS:
SIGNS HANGING IN OFFICE AREA

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR: TANG
SPILL CONTACT: **TELEPHONE:**

SPILLER: U S POSTAL SVC
ADDRESS:

SPILLER CONTACT: **TELEPHONE:**

CALLER: GIGI TOMPKINS **NOTIFIER:**
AGENCY: U S POSTAL SVC **AGENCY:**
TELEPHONE: (212) 996-9617 **TELEPHONE:**

LAST DEC UPDATE: 08/16/95 **CLOSE DATE:**
DOES CLEAN UP MEET STANDARDS? NO **PENALTY RECOMMENDED?** NO
DEC REMARKS:

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 15

DIST/DIR: 0.14 NE

MAP ID: 12

NAME: BET CHURCH/WEST BROADWAY
ADDRESS: BARKLEY ST
NEW YORK CITY NY

REV: 05/27/97
ID1: 9701106
ID2:
STATUS: CLOSED
PHONE:

CONTACT:

SPILL DATE: 4/24/97
SPILL TIME: 20:45

DATE REPORTED: 4/24/97
TIME REPORTED: 21:45

MATERIAL SPILLED: DIESEL
MATERIAL CLASS: 1

AMOUNT SPILLED: 55 G
AMOUNT RECOVERED: 0 G

CAUSE OF SPILL: UNKNOWN
RESOURCE AFFECTED: IN SEWER
WATERBODY AFFECTED:
SOURCE OF SPILL: NON MAJOR FACILITY > 1,100GAL
REPORTED BY: 09
CALLER REMARKS:
BEEN CONTAINED FIRE HAZMAT ON SCENE CLEANING SPILL UP

REGION: 2

UST TRUST? NO

SPILL INVESTIGATOR: TIBBE
SPILL CONTACT: COSMO ZINGAPORELLI

TELEPHONE: (212) 374-5500

SPILLER:
ADDRESS:

SPILLER CONTACT:

TELEPHONE:

CALLER: ROSEANN STRAITZ
AGENCY: NYC DEC
TELEPHONE: (718) 595-6777

NOTIFIER: OEM
AGENCY: MAYORS OFFICE
TELEPHONE: (000) 000-0000

LAST DEC UPDATE: 05/27/97
DOES CLEAN UP MEET STANDARDS? NO
DEC REMARKS:

CLOSE DATE: 04/24/97
PENALTY RECOMMENDED? NO

5/27/97. PRIVATE CONTRACTOR HAD DRUM OF DIESEL. IT GOT KNOCKED OVER. 20 GALLONS CLEANED WIT SPEEDI DRI 35 GALLONS IN SEWER. HANDLED BY OEM

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 37 **DIST/DIR:** 0.14 NE **MAP ID:** 26

NAME: TRADE CENTER #1 SUB STA
ADDRESS: 66 BARKLEY ST
MANHATTEN NY

REV: 02/11/00
ID1: 9912803
ID2:
STATUS: ACTIVE
PHONE:

CONTACT:

SPILL DATE: 02/10/00
SPILL TIME: 07:58

DATE REPORTED: 02/10/00
TIME REPORTED: 09:32

MATERIAL SPILLED: 0541
MATERIAL CLASS: P

AMOUNT SPILLED: 1 G
AMOUNT RECOVERED: 1 G

CAUSE OF SPILL: EQUIPMENT FAILURE
RESOURCE AFFECTED: ON LAND
WATERBODY AFFECTED:
SOURCE OF SPILL: COMMERCIAL/INDUSTRIAL
REPORTED BY: RESPONSIBLE PARTY
CALLER REMARKS:

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR: COMENALE
SPILL CONTACT: JIMMY FOX

TELEPHONE: (212) 580-6763

SPILLER: CON ED
ADDRESS: 4 IRVING PL
NEW YORK, NY

SPILLER CONTACT: CALLER

TELEPHONE: () -

CALLER:
AGENCY:
TELEPHONE:

NOTIFIER:
AGENCY:
TELEPHONE:

LAST DEC UPDATE: 02/11/00
DOES CLEAN UP MEET STANDARDS? NO
DEC REMARKS:

CLOSE DATE:
PENALTY RECOMMENDED? NO

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 47 **DIST/DIR:** 0 14 NE **MAP ID:** 12

NAME: TRADE CENTER SUB-STATION	REV: 02/11/00
ADDRESS: TRANSFORMER#7 BARCLAY ST MANHATTAN NY	ID1: 9912810
	ID2:
	STATUS: ACTIVE
CONTACT:	PHONE:

SPILL DATE: 02/10/00	DATE REPORTED: 02/10/00
SPILL TIME: 09:15	TIME REPORTED: 11:16

MATERIAL SPILLED: 0541	AMOUNT SPILLED: 1 G
MATERIAL CLASS: P	AMOUNT RECOVERED: 1 G

CAUSE OF SPILL:	UNKNOWN
RESOURCE AFFECTED:	ON LAND
WATERBODY AFFECTED:	
SOURCE OF SPILL:	COMMERCIAL/INDUSTRIAL
REPORTED BY:	RESPONSIBLE PARTY
CALLER REMARKS:	

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR:	COMENALE	
SPILL CONTACT:	STEPHEN CRIBBINS	TELEPHONE: (212) 580-8576

SPILLER:	CON ED	
ADDRESS:	4 IRVING PL	
	NEW YORK, NY	
SPILLER CONTACT:	CALLER	TELEPHONE:

CALLER:	NOTIFIER:
AGENCY:	AGENCY:
TELEPHONE:	TELEPHONE:

LAST DEC UPDATE: 02/11/00	CLOSE DATE:
DOES CLEAN UP MEET STANDARDS? NO	PENALTY RECOMMENDED? NO
DEC REMARKS:	

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 50 **DIST/DIR:** 0.14 NE **MAP ID:** 27

NAME: TRADE CENTER SUBSTATION
ADDRESS: 65 BARCLAY ST
MANHATTAN NY

REV: 02/18/00
ID1: 9911764
ID2:
STATUS: ACTIVE
PHONE:

CONTACT:

SPILL DATE: 01/10/00
SPILL TIME: 09:05

DATE REPORTED: 01/10/00
TIME REPORTED: 11:08

MATERIAL SPILLED: 0020
MATERIAL CLASS: P

AMOUNT SPILLED: 0 G
AMOUNT RECOVERED: 0 G

CAUSE OF SPILL: EQUIPMENT FAILURE
RESOURCE AFFECTED: ON LAND
WATERBODY AFFECTED:
SOURCE OF SPILL: COMMERCIAL/INDUSTRIAL
REPORTED BY: RESPONSIBLE PARTY
CALLER REMARKS:

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR: O'CONNELL
SPILL CONTACT: BILL MURPHY

TELEPHONE: (212) 580-6763

SPILLER: CON ED
ADDRESS: 4 IRVING PL
NEW YORK, NY

SPILLER CONTACT: CALLER

TELEPHONE: (212) 580-6763

CALLER:
AGENCY:
TELEPHONE:

NOTIFIER:
AGENCY:
TELEPHONE:

LAST DEC UPDATE: 02/18/00
DOES CLEAN UP MEET STANDARDS? NO
DEC REMARKS:

CLOSE DATE:
PENALTY RECOMMENDED? NO

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 55 **DIST/DIR:** 0.14 NE **MAP ID:** 28

NAME: VAULT #4646	REV: 01/12/99
ADDRESS: 46 BARCLAY ST MANHATTEN NY	ID1: 9812316
	ID2:
CONTACT:	STATUS: ACTIVE
	PHONE:

SPILL DATE: 1/5/99	DATE REPORTED: 1/5/99
SPILL TIME: 13:50	TIME REPORTED: 15:32

MATERIAL SPILLED: TRANSFORMER OIL	AMOUNT SPILLED: 8 G
MATERIAL CLASS:	AMOUNT RECOVERED: 8 G

CAUSE OF SPILL:	EQUIPMENT FAILURE
RESOURCE AFFECTED:	ON LAND
WATERBODY AFFECTED:	
SOURCE OF SPILL:	COMMERCIAL/INDUSTRIAL
REPORTED BY:	01

CALLER REMARKS:

TRANSFORMER FAILURE AT ABOVE LOCATION. CREW ON SCENE AND ALL MATERIAL EXPECTED TO BE RECOVERED. ALL MATERIAL CONTAINED IN VAULT. CON EDISON # 122243. NO CALL BACK REQUESTED

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR:	ENGELHARDT	
SPILL CONTACT:	RICHARD ROACH	TELEPHONE: (212) 580-6764

SPILLER:	CON EDISON	
ADDRESS:	4 IRVING PLACE MANHATTAN, NY 10003-	
SPILLER CONTACT:	RICHARD ROACH	TELEPHONE: (212) 580-6764

CALLER: RICHARD ROACH	NOTIFIER: MR RUSSO
AGENCY: CON EDISON	AGENCY: CON ED
TELEPHONE: (212) 580-6763	TELEPHONE: (212) 580-6763

LAST DEC UPDATE: 01/12/99	CLOSE DATE:
DOES CLEAN UP MEET STANDARDS? NO	PENALTY RECOMMENDED? NO
DEC REMARKS:	

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

NPDES SITE

SEARCH ID: 1 **DIST/DIR:** 0.14 SW **MAP ID:** 1

NAME: BATTERY PARK COMMERCIAL CENTER	REV:
ADDRESS: NEW YORK COUNTY NY 10006	ID1: NY0109932
	ID2:
CONTACT:	STATUS: MINOR
	PHONE:

SOURCE: NPDES	CLASS: MINOR
REC WATER: HUDSON R	DES FLOW: 19.20 MG D

MAIL CONTACT:	TELEPHONE:
COMPANY: BATTERY PARK COMMERCIAL CENTER	ISSUE DATE: 11-28-95
ADDRESS:	EXPIRE DATE: 02-01-01

CITY:

NOV:	ACTION NO:	REV DATE:
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TYPE:	ISS:	TYPE:	ISS:
TYPE:	ISS:	TYPE:	ISS:
	ISS:		

PERMITS SITE

SEARCH ID: 64 **DIST/DIR:** 0.14 SW **MAP ID:** 1

NAME: BATTERY PARK COMMERCIAL CENTER	REV:
ADDRESS: NEW YORK NY 10006	ID1: 240109932
	ID2: 02
CONTACT: PROP ADMIN OFFICE	STATUS: SSIGEND
	PHONE:

SOURCE:	CLASS: SSIGEND
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REC WATER: HUDSON RIVER	DES FLOW: 19.2 MG D
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MAIL CONTACT:	TELEPHONE:
COMPANY: OLYMPIA & YORK/US DEVELOPMENT	ISSUE DATE:
ADDRESS: 250 VESEY ST(4 WORLD FINA CTR)	EXPIRE DATE:

CITY: NEW YORK
NY

NOV:	ACTION NO:	REV DATE:
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TYPE: SURFACE	ISS:	TYPE: UNKNOWN	ISS:
TYPE:	ISS:	TYPE:	
	ISS:		

***Environmental FirstSearch
Site Detail Report***

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

PERMITS SITE

SEARCH ID: 64	DIST/DIR: 0.14 SW	MAP ID: 1
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NAME: BATTERY PARK COMMERCIAL CENTER	REV:
ADDRESS: NEW YORK NY 10006	ID1: 2-0109932
	ID2: 02
	STATUS: SSIGIND
CONTACT: PROP ADMIN OFFICE	PHONE:

SOURCE:	CLASS: SSIGIND
REC WATER: HUDSON RIVER	DES FLOW: 19.2 MG D
MAIL CONTACT:	TELEPHONE:
COMPANY: OLYMPIA & YORK/US DEVELOPMENT	ISSUE DATE:
ADDRESS: 250 VESEY ST(4 WORLD FINA CTR)	EXPIRE DATE:
CITY: NEW YORK	

NOV:	ACTION NO:	REV DATE:	
TYPE: SURFACE	ISS:	TYPE: UNKNOWN	ISS:
TYPE:	ISS:	TYPE:	ISS:
ISS:			

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER NYC

STATE SPILLS SITE

SEARCH ID: 11 **DIST/DIR:** 0.15 NE **MAP ID:** 10

NAME: BARCLAY ST & CHURCH ST	REV: 07/02/98
ADDRESS: BARCLAY ST & CHURCH ST	ID1: 9013327
MANHATTAN NY	ID2:
CONTACT:	STATUS: ACTIVE
	PHONE:

SPILL DATE: 5/21/90	DATE REPORTED: 5/4/95
SPILL TIME: 12:00	TIME REPORTED: 12:00

MATERIAL SPILLED: DIELECTRIC FLUID	AMOUNT SPILLED: 2000 G
MATERIAL CLASS:	AMOUNT RECOVERED: 0 G

CAUSE OF SPILL:	EQUIPMENT FAILURE
RESOURCE AFFECTED:	ON LAND
WATERBODY AFFECTED:	
SOURCE OF SPILL:	COMMERCIAL/INDUSTRIAL
REPORTED BY:	01
CALLER REMARKS:	
REPORTED BY CON ED AS REQUIRED UNDER CONSENT ORDER.	

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR: O CONNELL	
SPILL CONTACT:	TELEPHONE:

SPILLER: CON ED	
ADDRESS:	

SPILLER CONTACT:	TELEPHONE:
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CALLER:	NOTIFIER:
AGENCY:	AGENCY: CON ED
TELEPHONE:	TELEPHONE:

LAST DEC UPDATE: 07/02/98	CLOSE DATE:
DOES CLEAN UP MEET STANDARDS? NO	PENALTY RECOMMENDED? NO
DEC REMARKS:	

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 12 **DIST/DIR:** 0 15 NE **MAP ID:** 10

NAME: BARCLAY ST & CHURCH ST	REV: 07/02/98
ADDRESS: BARCLAY ST & CHURCH ST	ID1: 9013332
MANHATTAN NY	ID2:
	STATUS: ACTIVE
CONTACT:	PHONE:

SPILL DATE: 9/18/90	DATE REPORTED: 5/4/95
SPILL TIME: 12.00	TIME REPORTED: 12.00

MATERIAL SPILLED: DIELECTRIC FLUID	AMOUNT SPILLED: 2000 G
MATERIAL CLASS: 1	AMOUNT RECOVERED: 1 G

CAUSE OF SPILL: EQUIPMENT FAILURE
RESOURCE AFFECTED: ON LAND
WATERBODY AFFECTED:
SOURCE OF SPILL: COMMERCIAL/INDUSTRIAL
REPORTED BY: 01
CALLER REMARKS:
REPORTED BY CON ED AS REQUIRED UNDER CONSENT ORDER

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR: ENGELHARDT	TELEPHONE:
SPILL CONTACT:	

SPILLER: CON ED
ADDRESS:

SPILLER CONTACT:	TELEPHONE:
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CALLER:	NOTIFIER:
AGENCY:	AGENCY: CON ED
TELEPHONE:	TELEPHONE:

LAST DEC UPDATE: 07/02/98	CLOSE DATE:
DOES CLEAN UP MEET STANDARDS? NO	PENALTY RECOMMENDED? NO
DEC REMARKS:	

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER NYC

STATE SPILLS SITE

SEARCH ID: 14 **DIST/DIR:** 0.15 NE **MAP ID:** 10

NAME: BARCLAY ST OF CHURCH ST ADDRESS: BARCLAY ST OF CHURCH ST MANHATTAN NY	REV: 1.0 ID1: 9314107 ID2: STATUS: CLOSED PHONE:
CONTACT:	

SPILL DATE: 3/2/94	DATE REPORTED: 3/2/94	
SPILL TIME: 11:00	TIME REPORTED: 15:20	

MATERIAL SPILLED: UNKNOWN PETROLEUM	AMOUNT SPILLED: -1	
MATERIAL CLASS: 1	AMOUNT RECOVERED: 0	

MATERIAL SPILLED: ASBESTOS	AMOUNT SPILLED: 0	
MATERIAL CLASS: 2	AMOUNT RECOVERED: 0	

CAUSE OF SPILL:	HUMAN ERROR
RESOURCE AFFECTED:	ON LAND
WATERBODY AFFECTED:	
SOURCE OF SPILL:	COMMERCIAL/INDUSTRIAL
REPORTED BY:	01

CALLER REMARKS:
CONTRACTOR DAMAGE TO STEAM LINE DURING EXCAVATION. FAXED TO DEP

REGION: 2	UST TRUST?	NO
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SPILL INVESTIGATOR: CAMMISA	
SPILL CONTACT:	TELEPHONE:

SPILLER: CON-ED	
ADDRESS:	

SPILLER CONTACT:	TELEPHONE:
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CALLER: MR DEVOTI	NOTIFIER:
AGENCY: CON-ED	AGENCY:
TELEPHONE: (212) 580-6763	TELEPHONE:

LAST DEC UPDATE:	CLOSE DATE: 03/02/94
DOES CLEAN UP MEET STANDARDS? YES	PENALTY RECOMMENDED? NO
DEC REMARKS:	

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 23 **DIST/DIR:** 0.15 NE **MAP ID:** 10

NAME: MANHOLE #26168	REV: 09/14/99
ADDRESS: BARKLEY/CHURCH ST	ID1: 9907061
NEW YORK NY	ID2:
CONTACT:	STATUS: ACTIVE
	PHONE:

SPILL DATE: 9/13/99	DATE REPORTED: 9/13/99	
SPILL TIME: 18.50	TIME REPORTED: 19.44	

MATERIAL SPILLED: UNKNOWN PETROLEUM	AMOUNT SPILLED: 1 G	
MATERIAL CLASS: 1	AMOUNT RECOVERED: 0 G	

CAUSE OF SPILL:	UNKNOWN
RESOURCE AFFECTED:	ON LAND
WATERBODY AFFECTED:	
SOURCE OF SPILL:	NON-COMMERCIAL/INSTITUTIONAL
REPORTED BY:	02

CALLER REMARKS:
ABOVE MATERIAL REPORTED AS 1 QUART OF MATERIAL SPILLED ON TOP OF 2 GALLONS OF WATER. MATERIAL CONTAINED AND SAMPLE TAKEN. CLEANUP PENDING RESULTS. CON ED #127789. NO CALL BACK REQUESTED.

REGION: 2	UST TRUST? NO	
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SPILL INVESTIGATOR: O CONNELL		
SPILL CONTACT: RICHARD ROACH	TELEPHONE: (212) 580-6763	

SPILLER: UNKNOWN		
ADDRESS:		

SPILLER CONTACT:	TELEPHONE: () -
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CALLER: RICHARD ROACH	NOTIFIER: TOM RUSSO
AGENCY: CON EDISON	AGENCY: CON EDISON
TELEPHONE: (212) 580-6763	TELEPHONE: -

LAST DEC UPDATE: 09/14/99	CLOSE DATE:
DOES CLEAN UP MEET STANDARDS? NO	PENALTY RECOMMENDED? NO
DEC REMARKS:	

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 27 **DIST/DIR:** 0.15 NW **MAP ID:** 19

NAME: MANHOLE 60860 ADDRESS: WEST ST AND VESEY ST MANHATTEN NY NEW YORK CONTACT:	REV: 11/22/99 ID1: 9910133 ID2: STATUS: ACTIVE PHONE:
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SPILL DATE: 11/21/99	DATE REPORTED: 11/21/99
SPILL TIME: 14 35	TIME REPORTED: 15 53

MATERIAL SPILLED: UNKNOWN MATERIAL	AMOUNT SPILLED: 1 G
MATERIAL CLASS: 4	AMOUNT RECOVERED: 0 G

CAUSE OF SPILL:	UNKNOWN
RESOURCE AFFECTED:	ON LAND
WATERBODY AFFECTED:	
SOURCE OF SPILL:	COMMERCIAL/INDUSTRIAL
REPORTED BY:	01

CALLER REMARKS:
1 GAL ON 200GAL OF WATER - UNK TYPE OF OIL -- CLEAN UP PENDING SAMPLE RESULTS - CON ED SPILL #129062

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR: COMENALE		
SPILL CONTACT: BILL MURPHY		TELEPHONE: (212) 580-6763

SPILLER:
ADDRESS:

SPILLER CONTACT:	TELEPHONE:
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CALLER: BILL MURPHY	NOTIFIER:
AGENCY: CON EDISON	AGENCY:
TELEPHONE: (212) 580-6763	TELEPHONE:

LAST DEC UPDATE: 11/22/99	CLOSE DATE:
DOES CLEAN UP MEET STANDARDS? NO	PENALTY RECOMMENDED? NO
DEC REMARKS:	

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 4 **DIST/DIR:** 0.15 SW **MAP ID:** 4

NAME: 137 GREENWICH STREET	REV: 1
ADDRESS: 137 GREENWICH STREET	ID1: 9313411
MANHATTAN NY	ID2:
	STATUS: ACTIVE
CONTACT:	PHONE:

SPILL DATE: 2/8/94	DATE REPORTED: 2/14/94
SPILL TIME: 12:00	TIME REPORTED: 14:58

MATERIAL SPILLED: DIESEL	AMOUNT SPILLED: -1
MATERIAL CLASS: 1	AMOUNT RECOVERED: 0

CAUSE OF SPILL:	UNKNOWN
RESOURCE AFFECTED:	ON LAND
WATERBODY AFFECTED:	
SOURCE OF SPILL:	UNKNOWN
REPORTED BY:	02

CALLER REMARKS:

SUBWAY RUNS NOT TOO FAR FROM BUILDING. DIESEL LIKE SUBSTANCE RUNNING DOWN IN BASEMENT AT 137 GRENWICH.
CALLED MR ROGER WHO SAID THAT OIL IS SEPIING INTO THE BASEMENT OF THIS RESTAURANT THROUGH THE WALL

REGION: 2	UST TRUST? NO	
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SPILL INVESTIGATOR: TOMASELLO	
SPILL CONTACT:	TELEPHONE:

SPILLER: MAILING	
ADDRESS: 120 CEDAR ST	

SPILLER CONTACT:	TELEPHONE:
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CALLER: PATRICK ROGERS	NOTIFIER:
AGENCY: O'HARA'S RESTAURANT	AGENCY:
TELEPHONE: (212) 267-3032	TELEPHONE:

LAST DEC UPDATE:	CLOSE DATE:
DOES CLEAN UP MEET STANDARDS? NO	PENALTY RECOMMENDED? NO
DEC REMARKS:	

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 62 **DIST/DIR:** 0 16 NW **MAP ID:** 32

NAME: ADDRESS: 90 BARKLEY ST MANHATTAN NY	REV: 09/27/99 ID1: 9907612 ID2: STATUS: ACTIVE PHONE:
CONTACT:	

SPILL DATE: 9/23/99	DATE REPORTED: 9/23/99
SPILL TIME: 16:30	TIME REPORTED: 20:11

MATERIAL SPILLED: ASBESTOS	AMOUNT SPILLED: 1 L
MATERIAL CLASS: 2	AMOUNT RECOVERED: 0 L

CAUSE OF SPILL:	HUMAN ERROR
RESOURCE AFFECTED:	ON LAND
WATERBODY AFFECTED:	
SOURCE OF SPILL:	COMMERCIAL/INDUSTRIAL
REPORTED BY:	01
CALLER REMARKS:	

CONTRACTOR PILED SOIL MIXED WITH ASBESTOES ONTO SIDEWALK AT REPAIR EXCAVATION SITE TARP APPLIED AND EXCAVATION COVERED WITH METAL LID - HEPA CLEANUP CREW ENROUTE #127971 - NRC NOTIFIED

REGION: 2	UST TRUST?	NO
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SPILL INVESTIGATOR:	O'CONNELL	
SPILL CONTACT:	FRANK MASSERIA	TELEPHONE: (212) 580-6763

SPILLER:	CON EDISON	
ADDRESS:	4 IRVING PLACE	
	NEW YORK, NY 10003-	
SPILLER CONTACT:		TELEPHONE: (212) 580-6763

CALLER: FRANK MASSERIA	NOTIFIER: MR FITTON
AGENCY: CON EDISON	AGENCY: EDON ED
TELEPHONE: (212) 580-6763	TELEPHONE: (212) 580-6763

LAST DEC UPDATE: 09/27/99	CLOSE DATE:
DOES CLEAN UP MEET STANDARDS? NO	PENALTY RECOMMENDED? NO
DEC REMARKS:	

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 9 **DIST/DIR:** 0.16 SW **MAP ID:** 9

NAME: 90 WEST ST ADDRESS: 90 WEST ST MANHATTEN NY	REV: 12/04/96 ID1: 9610083 ID2: STATUS: CLOSED PHONE:
CONTACT:	

SPILL DATE: 11/13/96	DATE REPORTED: 11/13/96
SPILL TIME: 07 00	TIME REPORTED: 07 33

MATERIAL SPILLED: #4 FUEL OIL	AMOUNT SPILLED: 5 G
MATERIAL CLASS: 1	AMOUNT RECOVERED: 5 G

CAUSE OF SPILL: TANK OVERFILL
RESOURCE AFFECTED: ON LAND
WATERBODY AFFECTED:
SOURCE OF SPILL: COMMERCIAL VEHICLE
REPORTED BY: 01
CALLER REMARKS:
TANK WAS OVERFILLED BY DRIVER - SPILL INTO BASEMENT BEING CLEANED

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR: TOMASELLO	TELEPHONE:
SPILL CONTACT:	

SPILLER: MYSTIC TRANSPORTATION	TELEPHONE:
ADDRESS: 1901 STEINWAY ST ASTORIA, NY 11105-	
SPILLER CONTACT:	

CALLER: MIKE HELFONT	NOTIFIER: ERINE LONG
AGENCY: MYSTIC TRANSPORTATION	AGENCY: DRIVER - MYSTIC
TELEPHONE: (718) 932-9075	TELEPHONE:

LAST DEC UPDATE: 12/04/96	CLOSE DATE: 11 13 96
DOES CLEAN UP MEET STANDARDS? NO	PENALTY RECOMMENDED? NO
DEC REMARKS:	

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 10

DIST/DIR: 0.16 SW

MAP ID: 9

NAME: 90 WEST STREET
ADDRESS: 90 WEST STREET
MANHATTAN NY

REV: 05/02/96
ID1: 9600109
ID2:
STATUS: ACTIVE
PHONE:

CONTACT:

SPILL DATE: 4/2/96
SPILL TIME: 15:15

DATE REPORTED: 4/2/96
TIME REPORTED: 18:17

MATERIAL SPILLED: #6 FUEL OIL
MATERIAL CLASS: 1

AMOUNT SPILLED: 0 G
AMOUNT RECOVERED: 0 G

CAUSE OF SPILL: UNKNOWN
RESOURCE AFFECTED: ON LAND
WATERBODY AFFECTED:
SOURCE OF SPILL: NON-COMMERCIAL/INSTITUTIONAL
REPORTED BY: 01

CALLER REMARKS:

#6 FUEL OIL FOUND IN BASEMENT ADJACENT TO STORAGE FAULT. UNSURE IF IT IS A TANK FAILURE OR AN EQUIPMENT FAILURE. SPILL CONTAINED. CLEAN HARBOURS ENROUTE TO SCENE FOR CLEANUP AND EVACUATION OF TANK. BOILER SERVICE PERSONNEL TO RESPOND TO SCENE TOMORROW TO INVESTIGATE AND CORRECT CAUSE.

REGION: 2

UST TRUST? NO

SPILL INVESTIGATOR: MULQUEEN
SPILL CONTACT: MICHAEL BANK

TELEPHONE: (212) 732-9477

SPILLER: F G P 90 WEST STREET INC
ADDRESS: 90 WEST STREET
MANHATTAN, NY 10006-

SPILLER CONTACT:

TELEPHONE:

CALLER: MICHAEL BANK
AGENCY: GALBREATH COMPANY
TELEPHONE: (212) 732-9477

NOTIFIER: JOE CLARK
AGENCY: GALBREATH COMPANY
TELEPHONE: (212) 732-9477

LAST DEC UPDATE: 05/02/96
DOES CLEAN UP MEET STANDARDS? NO
DEC REMARKS:

CLOSE DATE:
PENALTY RECOMMENDED? NO

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 16 **DIST/DIR:** 0.18 SE **MAP ID:** 13

NAME: COLLEGIATE DUTCH REFORM C	REV: 04/02/96
ADDRESS: 198 BROADWAY	ID1: 9516128
MANHATTAN NY	ID2:
CONTACT:	STATUS: CLOSED
	PHONE:

SPILL DATE: 3/15/96	DATE REPORTED: 3/15/96	
SPILL TIME: 14:00	TIME REPORTED: 15:17	

MATERIAL SPILLED: #4 FUEL OIL	AMOUNT SPILLED: 10 G	
MATERIAL CLASS: 1	AMOUNT RECOVERED: 10 G	

CAUSE OF SPILL:	EQUIPMENT FAILURE
RESOURCE AFFECTED:	ON LAND
WATERBODY AFFECTED:	
SOURCE OF SPILL:	NON-COMMERCIAL/INSTITUTIONAL
REPORTED BY:	OTHER

CALLER REMARKS:
COLLEGIATE DUTCH REFORM CHURCH. DEFECTIVE PETROMETER. ONTO SIDEWALK. GUAGE BEING REPAIRED BY CASTLE OIL. CLEANED UP.

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR: TANG	
SPILL CONTACT:	TELEPHONE:

SPILLER: COLLEGIATE DUTCH REFORM C	
ADDRESS: 198 BROADWAY	
MANHATTAN, NY	
SPILLER CONTACT:	TELEPHONE: (212) 233-2160

CALLER: ED GUARI	NOTIFIER: ANTHONY MORAN
AGENCY: GOTHAM PETROLEUM	AGENCY: GOTHAM PETROLEUM
TELEPHONE: (718) 389-8100	TELEPHONE: 718.389-8100

LAST DEC UPDATE: 04/02/96	CLOSE DATE: 03/15/96
DOES CLEAN UP MEET STANDARDS? NO	PENALTY RECOMMENDED? NO
DEC REMARKS:	

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 60

DIST/DIR: 0.19 NW

MAP ID: 31

NAME:
ADDRESS: BARKLEY ST/WEST ST
MANHATTAN NY

REV: 06/28/99
ID1: 9903519
ID2:
STATUS: ACTIVE
PHONE:

CONTACT:

SPILL DATE: 6/27/99
SPILL TIME: 15:30

DATE REPORTED: 6/27/99
TIME REPORTED: 17:08

MATERIAL SPILLED: DIELECTRIC FLUID
MATERIAL CLASS: 1

AMOUNT SPILLED: 0 G
AMOUNT RECOVERED: 0 G

CAUSE OF SPILL: EQUIPMENT FAILURE
RESOURCE AFFECTED: ON LAND
WATERBODY AFFECTED:
SOURCE OF SPILL: COMMERCIAL/INDUSTRIAL
REPORTED BY: 01
CALLER REMARKS:

2 OZ SPILL ONTO SOIL FROM RETIRED DC CABLE. CLEAN UP PENDING LAB RESULTS CON ED 125-782

REGION: 2

UST TRUST? NO

SPILL INVESTIGATOR: O CONNELL
SPILL CONTACT: RICHARD ROACH

TELEPHONE: (212) 580-6763

SPILLER: CON ED
ADDRESS: 4 IRVING PLACE
MANHATTAN, NY 10003-

SPILLER CONTACT: CALLER

TELEPHONE: (212) 580-6763

CALLER: RICHARD ROACH
AGENCY: CON EDISON
TELEPHONE: 212) 580-6763

NOTIFIER: MR CROWE
AGENCY: CON EDISON
TELEPHONE: (212) 580-6763

LAST DEC UPDATE: 06/28/99
DOES CLEAN UP MEET STANDARDS? NO
DEC REMARKS:

CLOSE DATE:
PENALTY RECOMMENDED? NO

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 5 **DIST/DIR:** 0.19 SE **MAP ID:** 5

NAME: 145 BROADWAY ADDRESS: 145 BROADWAY MANHATTAN NY	REV: 05/29/96 ID1: 9602463 ID2: STATUS: CLOSED PHONE:
CONTACT:	

SPILL DATE: 5/21/96	DATE REPORTED: 5/21/96
SPILL TIME: 14:15	TIME REPORTED: 14:57

MATERIAL SPILLED: ETHYLENE GLYCOL	AMOUNT SPILLED: 1 G
MATERIAL CLASS: 2	AMOUNT RECOVERED: 1 G

CAUSE OF SPILL:	EQUIPMENT FAILURE
RESOURCE AFFECTED:	ON LAND
WATERBODY AFFECTED:	
SOURCE OF SPILL:	COMMERCIAL VEHICLE
REPORTED BY:	01

CALLER REMARKS:
ONE OF THIER VEHICLES LEAKED ANTIFREEZE FROM THE VEHICLE. SPILL WAS CLEANED UP

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR:	ENGELHARDT	
SPILL CONTACT:	MR POLLICINO	TELEPHONE: (212) 338-3255

SPILLER:	CON ED
ADDRESS:	

	. NY	
SPILLER CONTACT:	SAME	TELEPHONE:

CALLER: RICHARD ROACH	NOTIFIER: MR POLLICINO
AGENCY: CON ED	AGENCY: CON ED
TELEPHONE: (212) 580-6764	TELEPHONE: (212) 338-3255

LAST DEC UPDATE: 05/29/96	CLOSE DATE: 05/21/96
DOES CLEAN UP MEET STANDARDS? NO	PENALTY RECOMMENDED? NO
DEC REMARKS:	

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 6 **DIST/DIR:** 0 19 SE **MAP ID:** 6

NAME: 170 BROADWAY ADDRESS: 170 BROADWAY MANHATTAN NY	REV: 11/13/97 ID1: 9515608 ID2: STATUS: CLOSED PHONE:
CONTACT:	

SPILL DATE: 3/5/96	DATE REPORTED: 3/5/96	
SPILL TIME: 12 10	TIME REPORTED: 13 11	

MATERIAL SPILLED: #6 FUEL OIL	AMOUNT SPILLED: 6 G	
MATERIAL CLASS: 1	AMOUNT RECOVERED: 6 G	

CAUSE OF SPILL:	TRAFFIC ACCIDENT
RESOURCE AFFECTED:	ON LAND
WATERBODY AFFECTED:	
SOURCE OF SPILL:	NON-COMMERCIAL/INSTITUTIONAL
REPORTED BY:	01

CALLER REMARKS:
A CAR RAN OVER THE FILL HOSE AND SPILLED THE FUEL ONTO THE PAVEMENT IFO THE BLDG - SPILL CLEANED UP WITH SPEEDY DRY

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR: LUCE		
SPILL CONTACT: SUPERINTENDANT		TELEPHONE:

SPILLER: MYSTIC TRANSPORTATION		
ADDRESS: 1901 STEINWAY ST		
ASTORIA, NY 11105-		
SPILLER CONTACT: JOHN GOODWIN		TELEPHONE: (718) 932-9075

CALLER: STEVE YANG	NOTIFIER: CHRIS BLETSOS	
AGENCY: MYSTIC TRANSPORTATION	AGENCY: DRIVER	
TELEPHONE: (718) 932-9075	TELEPHONE: (718) 932-9075	

LAST DEC UPDATE: 11-13/97	CLOSE DATE: 11-13/97	
DOES CLEAN UP MEET STANDARDS? NO	PENALTY RECOMMENDED? NO	
DEC REMARKS:		

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 32 **DIST/DIR:** 0.19 SW **MAP ID:** 24

NAME: NORTH BASIN YACHT CLUB	REV: 09/24/96
ADDRESS: WESTSIDE HWY. BATTERY PARK MANHATTAN NY	ID1: 9607185
	ID2:
	STATUS: CLOSED
CONTACT:	PHONE:

SPILL DATE: 9/6/96	DATE REPORTED: 9-6/96
SPILL TIME: 11:00	TIME REPORTED: 11:50

MATERIAL SPILLED: WASTE OIL	AMOUNT SPILLED: G
MATERIAL CLASS: 1	AMOUNT RECOVERED: G

CAUSE OF SPILL:	UNKNOWN
RESOURCE AFFECTED:	SURFACE WATER
WATERBODY AFFECTED:	HUDSON RIVER
SOURCE OF SPILL:	UNKNOWN
REPORTED BY:	FEDERAL GOVERNMENT

CALLER REMARKS:
CALLER STATES HE WAS NOTIFIED OF A SHEEN ON THE WATER AT BATTERY PARK - POSS CAUSE IS A VESSEL AT THE CLUB.

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR: MARTINKAT	
SPILL CONTACT: NONE	TELEPHONE:

SPILLER: UNKNOWN	
ADDRESS:	

SPILLER CONTACT:	TELEPHONE:
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CALLER: ENGKERT	NOTIFIER: CITIZEN
AGENCY: USCG	AGENCY:
TELEPHONE: (212) 668-7920	TELEPHONE:

LAST DEC UPDATE: 09/24/96	CLOSE DATE: 9-06-96
DOES CLEAN UP MEET STANDARDS? NO	PENALTY RECOMMENDED? NO

DEC REMARKS:
MINOR SHEEN - UNABLE TO DETERMINE SOURCE - SHEEN BREAKING UP - TIDE COMING IN - NO FURTHER INVESTIGATION

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 29 **DIST/DIR:** 0.20 SE **MAP ID:** 21

NAME: MH 0033	REV: 02/05/99
ADDRESS: LIBERTY AND BROADWAY	ID1: 9813566
MANHATTAN NY	ID2:
CONTACT:	STATUS: ACTIVE
	PHONE:

SPILL DATE: 2/5/99	DATE REPORTED: 2/5/99
SPILL TIME: 13.00	TIME REPORTED: 14:14

MATERIAL SPILLED: TRANSFORMER OIL	AMOUNT SPILLED: 25 G
MATERIAL CLASS:	AMOUNT RECOVERED: 0 G

CAUSE OF SPILL:	EQUIPMENT FAILURE
RESOURCE AFFECTED:	ON LAND
WATERBODY AFFECTED:	
SOURCE OF SPILL:	NON-COMMERCIAL/INSTITUTIONAL
REPORTED BY:	02
CALLER REMARKS:	
CON ED 122877	

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR:	ENGELHARDT	
SPILL CONTACT:	RICHARD ROACH	TELEPHONE: (212) 580-6763

SPILLER:	CON ED	
ADDRESS:	4 IRVING PLACE	
	MANHATTAN, NY 10003-	
SPILLER CONTACT:	RICHARD ROACH	TELEPHONE: (212) 580-6763

CALLER: RICHARD ROACH	NOTIFIER: PAUL MOSSEY
AGENCY: CON EDISON	AGENCY: CON ED
TELEPHONE: (212) 580-6764	TELEPHONE:

LAST DEC UPDATE: 02/05/99	CLOSE DATE:
DOES CLEAN UP MEET STANDARDS? NO	PENALTY RECOMMENDED? NO
DEC REMARKS:	

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 35 **DIST/DIR:** 0.20 SE **MAP ID:** 21

NAME: TMR 0033	REV: 06/09/99
ADDRESS: BRAODWAY/LIBERTY ST MANHATTAN NY	ID1: 9902686
	ID2:
	STATUS: ACTIVE
CONTACT:	PHONE:

SPILL DATE: 6/8/99	DATE REPORTED: 6/8/99
SPILL TIME: 09:15	TIME REPORTED: 14:31

MATERIAL SPILLED: HYDRAULIC OIL	AMOUNT SPILLED: 6 G
MATERIAL CLASS: 1	AMOUNT RECOVERED: 0 G

CAUSE OF SPILL:	UNKNOWN
RESOURCE AFFECTED:	ON LAND
WATERBODY AFFECTED:	
SOURCE OF SPILL:	UNKNOWN
REPORTED BY:	OTHER

CALLER REMARKS:
ON 100 GALS OF WATER. CLEAN UP PENDING LAB RESULTS. CON ED 125-416

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR:	ENGELHARDT	
SPILL CONTACT:	STEVEN CRIBBIN	TELEPHONE: (212) 580-6763

SPILLER:	UNKNOWN
ADDRESS:	

SPILLER CONTACT:	TELEPHONE: () - -
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CALLER: STEVEN CRIBBIN	NOTIFIER: MR BYLAICK
AGENCY: CON EDISON	AGENCY: CON ED
TELEPHONE: (212) 580-6763	TELEPHONE:

LAST DEC UPDATE: 06/09/99	CLOSE DATE:
DOES CLEAN UP MEET STANDARDS? NO	PENALTY RECOMMENDED? NO
DEC REMARKS:	

Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER NYC

STATE SPILLS SITE

SEARCH ID: 3

DIST/DIR: 0.21 SE

MAP ID: 3

NAME: 132 BROADWAY
ADDRESS: 132 BROADWAY
MANHATTAN NY

REV: 01/08/93
ID1: 9210319
ID2:
STATUS: CLOSED
PHONE:

CONTACT:

SPILL DATE: 12/6/92
SPILL TIME: 20:30

DATE REPORTED: 12/6/92
TIME REPORTED: 21 14

MATERIAL SPILLED: DIESEL
MATERIAL CLASS: 1

AMOUNT SPILLED: 200 G
AMOUNT RECOVERED: 0 G

CAUSE OF SPILL:	UNKNOWN
RESOURCE AFFECTED:	GROUNDWATER
WATERBODY AFFECTED:	
SOURCE OF SPILL:	NON-COMMERCIAL/INSTITUTIONAL
REPORTED BY:	04

CALLER REMARKS:
DEISEL FUEL COMING FROM VENT PIPES UNK REASON-POSS OVERFILL SHUT PUMPS OFF SANDING DRIVEWAY DEP FIRE ON
SCENE DOT NOTIFIED

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR: TOMASELLO
SPILL CONTACT:

TELEPHONE:

SPILLER:
ADDRESS:

SPILLER CONTACT:

TELEPHONE:

CALLER: JOE IOVINO
AGENCY: FIVE HAZ MAT
TELEPHONE: (718) 344-2119

NOTIFIER:
AGENCY:
TELEPHONE:

LAST DEC UPDATE: 01-08/93
DOES CLEAN UP MEET STANDARDS? YES
DEC REMARKS:

CLOSE DATE: 12/06/92
PENALTY RECOMMENDED? NO

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 56 **DIST/DIR:** 0.22 SE **MAP ID:** 29

NAME: VAULT 4307 ADDRESS: 17 JOHN ST MANHATTAN NY NEW YORK CONTACT:	REV: 05/22/00 ID1: 0001142 ID2: STATUS: CLOSED PHONE:
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SPILL DATE: 04/28/00	DATE REPORTED: 04/28/00
SPILL TIME: 11:00	TIME REPORTED: 12:18

MATERIAL SPILLED: 0064	AMOUNT SPILLED: 200 G
MATERIAL CLASS: 1	AMOUNT RECOVERED: 0 G

CAUSE OF SPILL:	UNKNOWN
RESOURCE AFFECTED:	ON LAND
WATERBODY AFFECTED:	
SOURCE OF SPILL:	UNKNOWN
REPORTED BY:	AFFECTED PERSONS
CALLER REMARKS:	

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR: O'CONNELL	TELEPHONE:
SPILL CONTACT:	

SPILLER:
ADDRESS:

SPILLER CONTACT:	TELEPHONE:
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CALLER:	NOTIFIER:
AGENCY:	AGENCY:
TELEPHONE:	TELEPHONE:

LAST DEC UPDATE: 05/22/00	CLOSE DATE: 05/12/00
DOES CLEAN UP MEET STANDARDS? NO	PENALTY RECOMMENDED? NO

DEC REMARKS:
CON ED E2 MIS REPORT 5/01/00 200 GALLONS OF UNKNOWN FLUID MIXED WITH 100 GALS WATER. SUMP VERIFIED
SEWER CONNECTED WITH SUMP PUMP NOT RUNNING PCB & ID SAMPLE TAKEN DEC INSPECTOR NOTES SOURCE NOT
IDENTIFIED. CLEANUP COMPLETE.

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 63

DIST/DIR: 0.23 NE

MAP ID: 33

NAME:
ADDRESS: MURRAY ST & GREENWICH ST
MANHATTAN NY
NEW YORK

REV: 10/13/98
ID1: 9808606
ID2:
STATUS: ACTIVE
PHONE:

CONTACT:

SPILL DATE: 10/11/98
SPILL TIME: 09:50

DATE REPORTED: 10/11/98
TIME REPORTED: 10:26

MATERIAL SPILLED: DIELECTRIC FLUID
MATERIAL CLASS: 1

AMOUNT SPILLED: 0 G
AMOUNT RECOVERED: 0 G

CAUSE OF SPILL: EQUIPMENT FAILURE
RESOURCE AFFECTED: ON LAND
WATERBODY AFFECTED:
SOURCE OF SPILL: COMMERCIAL/INDUSTRIAL
REPORTED BY: 01

CALLER REMARKS:

PAPER RAPPED FEEDER FAULTED AND CAUGHT FIRE INTO MANHOLE. UNKNOWN IF ANY DRAINS. WAITING FOR FEEDER TO BE DEENERGIZED. BEING CONSIDERED >500 PPM OF PCB S. SAMPLES TO BE TAKNE WAS FEEDER IS DEENERGIZED. CLEAN UP TO FOLLOW.

REGION: 2

UST TRUST? NO

SPILL INVESTIGATOR: ENGELHARDT
SPILL CONTACT:

TELEPHONE:

SPILLER: CON EDISON
ADDRESS: 4 IRVING PLACE
NEW YORK, NY 10003-

SPILLER CONTACT:

TELEPHONE: (212) 580-6763

CALLER: MIKE CESARE
AGENCY: CON EDISON
TELEPHONE: (212) 580-6763

NOTIFIER: MR. ROMANO
AGENCY: CON EDISON
TELEPHONE:

LAST DEC UPDATE: 10/13/98
DOES CLEAN UP MEET STANDARDS? NO
DEC REMARKS:

CLOSE DATE:
PENALTY RECOMMENDED? NO

Environmental FirstSearch
Site Detail Report

TARGET SITE: one WORLD TRADE CENTER
NEW YORK CITY NY 10081

JOB: 000095
WORLD TRADE CENTER, NYC

STATE SPILLS SITE

SEARCH ID: 34 **DIST/DIR:** 0.25 SE **MAP ID:** 25

NAME: STRAWBERRY SHOP	REV: 05/06/96
ADDRESS: 79-81 NASSAU ST	ID1: 9512928
MANHATTAN NY	ID2:
NEW YORK	STATUS: CLOSED
CONTACT:	PHONE:

SPILL DATE: 1/16/96	DATE REPORTED: 1/17/96
SPILL TIME: 17:00	TIME REPORTED: 14:01

MATERIAL SPILLED: OTHER PETROLEUM	AMOUNT SPILLED: 0 G
MATERIAL CLASS: 1	AMOUNT RECOVERED: 0 G

CAUSE OF SPILL:	UNKNOWN
RESOURCE AFFECTED:	AIR
WATERBODY AFFECTED:	
SOURCE OF SPILL:	COMMERCIAL/INDUSTRIAL
REPORTED BY:	07

CALLER REMARKS:

ROOF LEAKING.CEILING CAVING IN THROAT BURNING.EYES WATERING-ODOR REF TO PEP/AIR. FAXED FROM REGION.

REGION: 2 **UST TRUST?** NO

SPILL INVESTIGATOR: MARTINKAT
SPILL CONTACT:

TELEPHONE:

SPILLER: STRAWBERRY SHOP
ADDRESS:

SPILLER CONTACT:

TELEPHONE:

CALLER: SONDRA MARTINKAT
AGENCY: NYS DEC
TELEPHONE: (718) 482-4933

NOTIFIER:
AGENCY: SHOPPER
TELEPHONE:

LAST DEC UPDATE: 05/06/96

CLOSE DATE: 2-22-96

DOES CLEAN UP MEET STANDARDS? NO

PENALTY RECOMMENDED? NO

DEC REMARKS:

REFERRED TO HAZMAT

Environmental FirstSearch Federal Databases and Sources

1. **NPL: National Priority List.** The EPA's list of confirmed or proposed Superfund sites.

Updated quarterly.

2. **CERCLIS: Comprehensive Environmental Response Compensation and Liability Information System.** The EPA's database of current and potential Superfund sites currently or previously under investigation.

Updated quarterly.

3. **RCRIS: Resource Conservation and Recovery Information System.** The EPA's database of registered hazardous waste generators and treatment, storage and disposal facilities. Included are RAATS (RCRA Administrative Action Tracking System) and CMEL (Compliance Monitoring & Enforcement List).

Updated quarterly.

4. **ERNS: Emergency Response Notification System.**
The EPA's database of EPA emergency response actions.

Updated quarterly.

5. **NPDES: National Pollution Discharge Elimination System.**
The EPA's database of all permitted facilities receiving and discharging effluents to and from the environment.

Updated semi-annually.

6. **FINDS: The Facility Index System.** The EPA's Index of Identification numbers associated with a property or facility which the EPA has investigated or has been made aware of in conjunction with various regulatory programs. Each record indicates the EPA office that may have files on the site or facility.

Updated quarterly.

**Environmental FirstSearch
New York Databases and Sources**

1. **State Sites:** The New York State Department of Environmental Conservation's Registry of Inactive Hazardous Waste Disposal Sites. The database contains information on all Class 1, Class 2, Class 2a, Class 3, Class 4, and Class 5 locations maintained by the Division of Hazardous Waste Remediation.

Updated quarterly.

The Hazardous Substance Waste Disposal Site Study list maintained by the New York State Department of Environmental Conservation is also included within the State Sites database.

Updated as available.

2. **Spills:** The New York State Department of Environmental Conservation's database of emergency response actions and spill releases maintained by the Division of Spills Management.

Updated quarterly.

3. **Landfills:** The New York State Department of Environmental Conservation's Active Facilities Registry maintained by the Division of Solid and Hazardous Materials.

Updated annually.

4. **UST:** The New York State Department of Environmental Conservation's database of Petroleum Bulk Storage (PBS) facilities, Major Oil Storage Facilities (MOSF), and Chemical Bulk Storage (CBS) facilities maintained by the Division of Spills Management and delegated Counties (Nassau, Suffolk, Rockland, and Cortland Counties).

Updated quarterly.

5. **PWS:** The State of New York Department of Health database of Public Water Supply PWS wells maintained by the Bureau of Public Water Supply.

Updated annually.

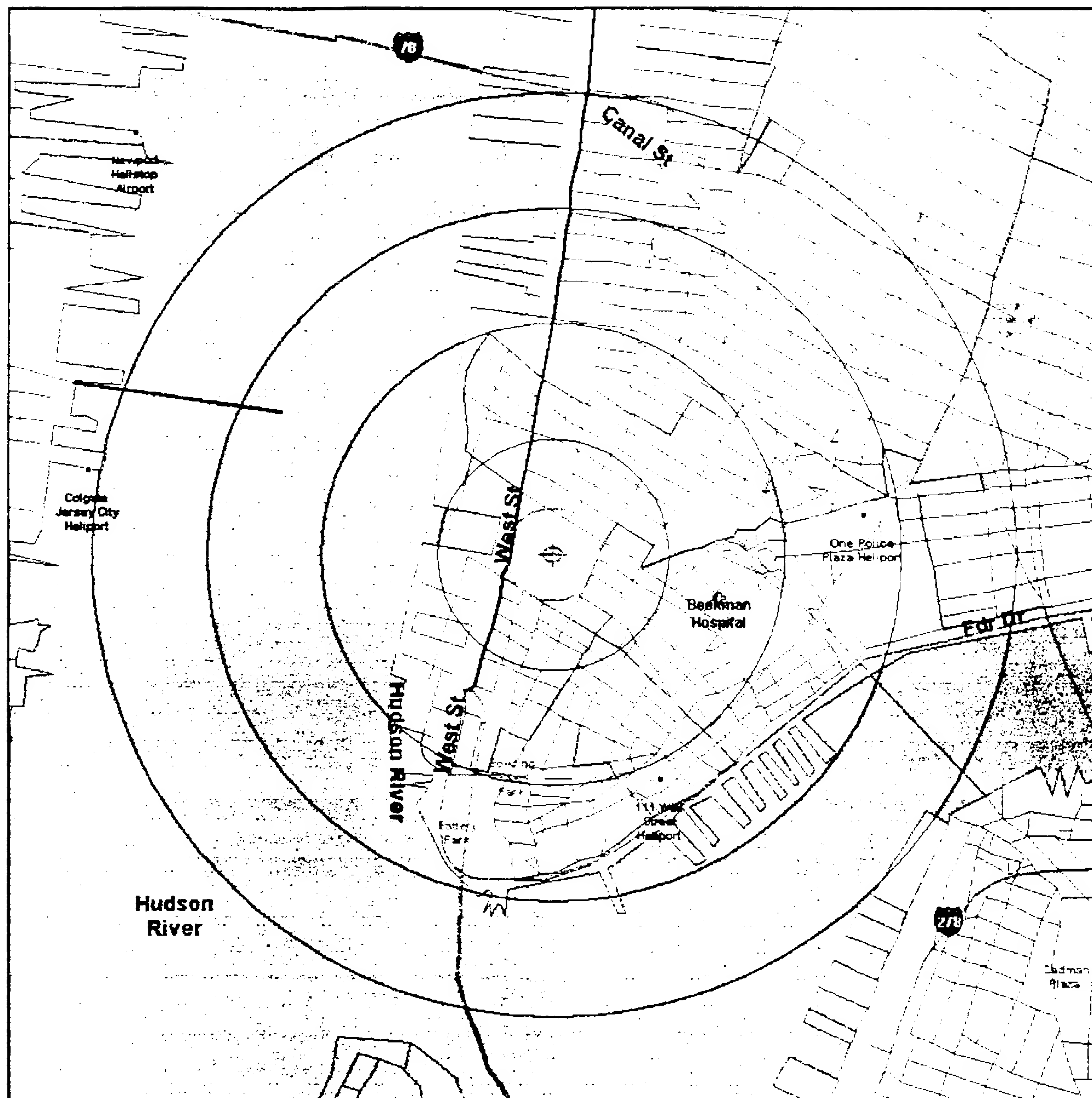
6. **LUST:** The New York State Department of Environmental Conservation's database of Leaking Underground Storage Tanks (LUSTs) maintained by the Division of Spills Management. The database is derived from the Spills database.

Updated quarterly.

Environmental FirstSearch
1 Mile Radius
ASTM Map NPL RCRACOR STATE Sites

FIRSTSEARCH

One WORLD TRADE CENTER NEW YORK CITY NY 10051



Source: 1999 U.S. Census TIGER Files

Target Site (Latitude 40.711325 Longitude -74.012215)

Identified Site, Multiple Sites, Receptor

NPL, Solid Waste Landfill (SWL) or Hazardous Waste

Railroads

Black Rings Represent 1/4 Mile Radius, Grey Rings Represent 1/2 Mile Radius



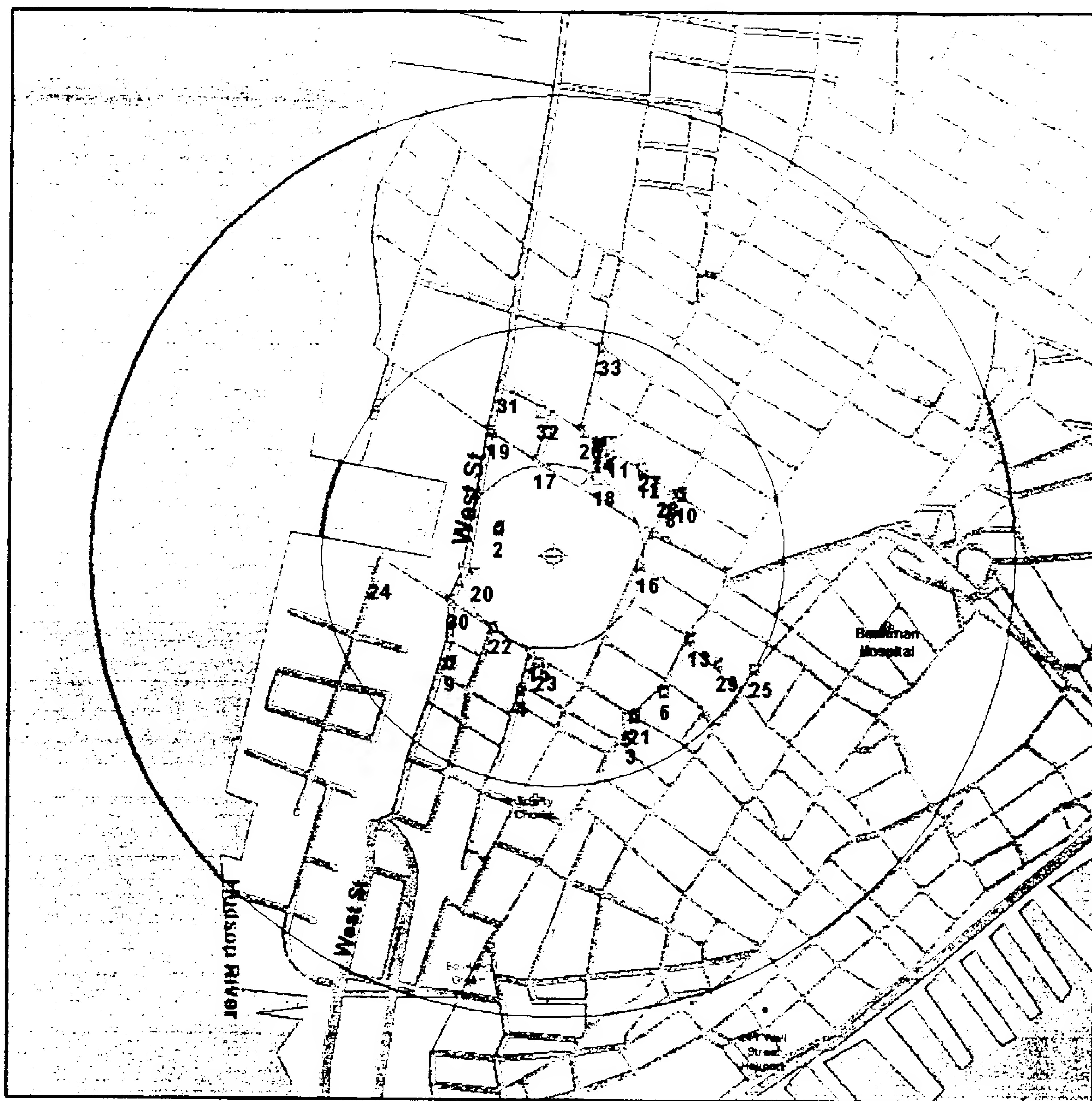
Environmental FirstSearch

.5 Mile Radius

ASTM Map: CERCLIS, RCRATSD, SPILLS90, SWL

FIRSTSEARCH

one WORLD TRADE CENTER NEW YORK CITY NY 10061



Source: 1999 U.S. Census TIGER Files

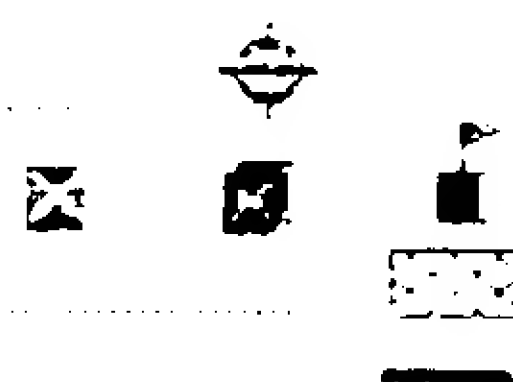
Target Site (Latitude: 40.711325 Longitude: -74.012215)

Identified Site, Multiple Sites, Receptor

NPL, Solid Waste Landfill (SWL) or Hazardous Waste

Railroads

Black Rings Represent 1/4 Mile Radii. Red Ring Represents 5/8 Mile Radius



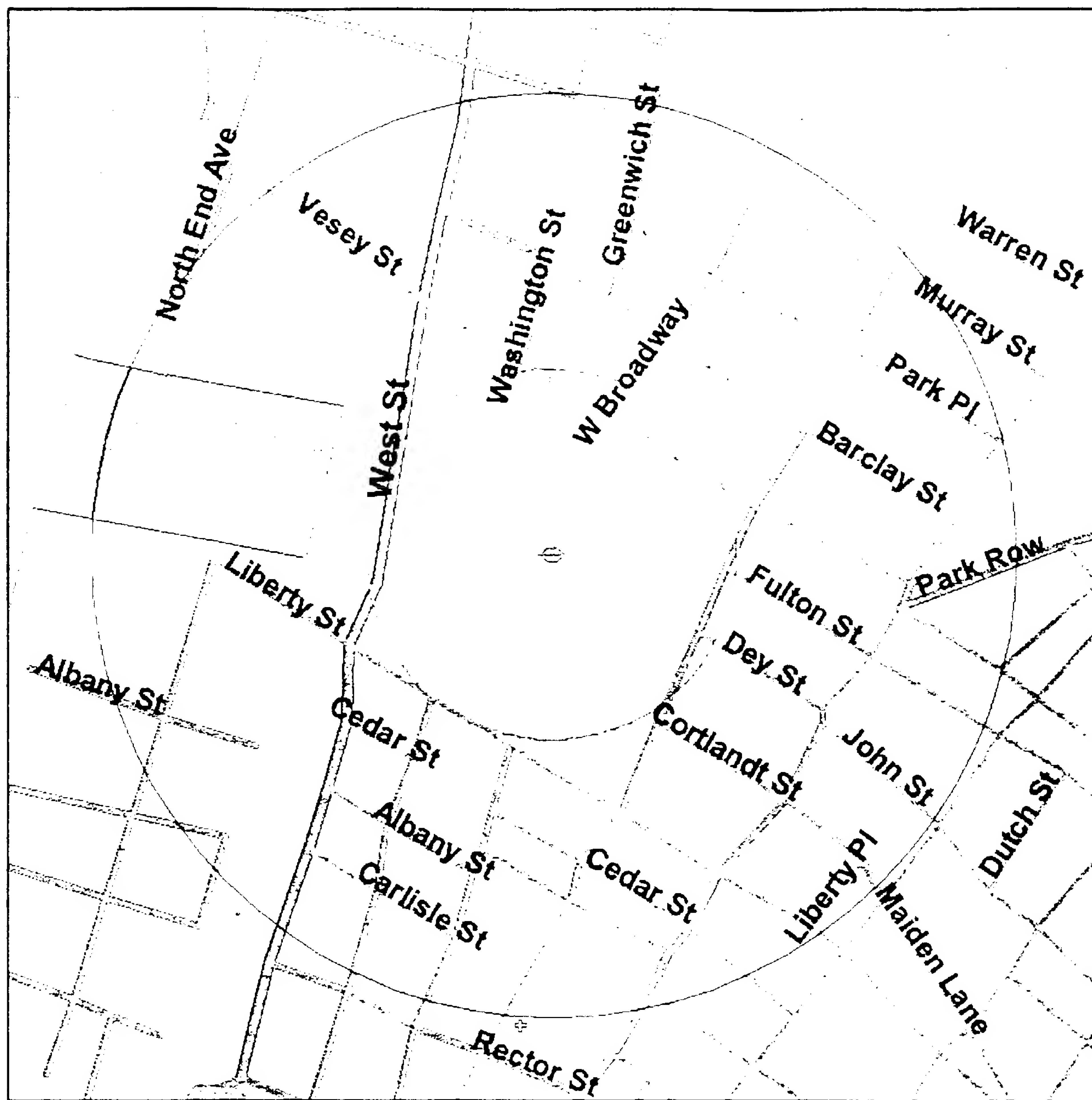
Environmental FirstSearch

.25 Mile Radius

ASTM Map RCRAGEN ERNS UST

FIRSTSEARCH

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION



Source: 1990 U.S. Census TIGER Files

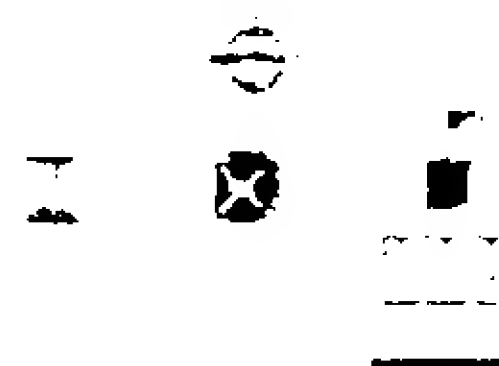
Target Site (Latitude 40.711325 Longitude -74.012215)

Identified Site, Multiple Sites, Receptor

NPL, Solid Waste Landfill (SWL) or Hazardous Waste

Railroads

Black Rings Represent 1/4 Mile Radius



TERMINOLOGY

The following terms and acronyms are defined by ASTM for their specific application in ASTM E1527 and E1528 Standard Practices for Environmental Site Assessment. The terms are critical to an understanding of the written practices and their use. Terms noted by "" are additional terms not included in the ASTM definitions.*

abutting properties ()* - any real property or properties the border of which is contiguous or partially contiguous with that of the *property* or *subject Site*. Similar to adjoining properties except streets, roads or other public thoroughfares may themselves be *abutting properties*.

actual knowledge - the knowledge actually possessed by an individual who is a real person, rather than an entity. *Actual knowledge* is to be distinguished from constructive knowledge, that is, knowledge imputed to an individual or entity.

adjacent properties ()* - same as *adjoining properties*.

adjoining properties - any real property or properties the border of which is contiguous or partially contiguous with that of the *property*, or that would be contiguous or partially contiguous with that of the *property* but for a street, road, or other public thoroughfare separating them.

aerial photographs - photographs taken from an airplane or helicopter of areas encompassing the *property*. Aerial photographs are often available from government agencies or private collections unique to a local area.

appropriate inquiry - that inquiry constituting "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial and customary practice" as defined in CERCLA, 42 USC 9601(35)(B), that will give a party to a *commercial real estate* transaction the *innocent landowner defense* to CERCLA liability (42 USC 9601(A) and (B) and 9607(b)(3)), assuming compliance with other elements of the defense.

approximate minimum search distance - the area for which records must be obtained and reviewed pursuant to the Records Review Section of Practice E1527, subject to the limitations provided in that section. The term approximate minimum search distance may include areas outside the *property* and shall be measured from the nearest *property* boundary. The term approximate minimum search distance is used in lieu of radius to include irregularly shaped properties.

asbestos - six naturally occurring fibrous minerals found in certain types of rock formations. Of the six, the minerals chrysotile, amosite, and crocidolite have been most commonly used in building products. When mined and processed, asbestos is typically separated into very thin fibers. Because asbestos is strong, incombustible, and corrosion-resistant, asbestos was used in many commercial products beginning early in this century and peaking in the period from World War II into the 1970s. When inhaled in sufficient quantities, asbestos fibers can cause serious health problems.

asbestos-containing material (ACM) - any material or product that contains more than one percent *asbestos*.

ASTM - formerly the American Society for Testing and Materials.

building department records - those records of the local government in which the property is located

indicating permission of the local government to construct, alter, or demolish improvements on the property. Often building department records are located in the building department of a municipality or county.

CERCLA - Comprehensive Environmental Response, Compensation and Liability of 1980 Act (as amended, 42 USC 9601 *et seq.*).

CERCLIS - Comprehensive Environmental Response, Compensation and Liability Information System maintained by EPA. A list of sites that the EPA has investigated or is currently investigating for potential hazardous substance contamination for possible inclusion on the National Priorities List.

CFR - Code of Federal Regulations.

commercial real estate - any real property except a dwelling or property with no more than four dwelling units exclusively for residential use (except that a dwelling or property with no more than four dwelling units exclusively for residential use is included in the term commercial real estate when it has a commercial function, as in the building of such dwellings for profit). The term commercial real estate includes but is not limited to undeveloped real property and real property used for industrial, retail, office, agricultural, other commercial, medical, or educational purposes; property used for residential purposes that has more than four residential dwelling units; and property with no more than four dwelling units for residential use when it has a commercial function, as in the building of such dwellings for profit.

commercial real estate transaction - a transfer of title to or possession of real property or receipt of a security interest in real property, except that it does not include transfer of title to or possession of real property or the receipt of a security interest in real property with respect to an individual dwelling or building containing fewer than five dwelling units, nor does it include the purchase of a lot or lots to construct a dwelling for occupancy by a purchaser, but a commercial real estate transaction does include real property purchased or leased by persons or entities in the business of building or developing dwelling units.

Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) the list of sites compiled by EPA that EPA has investigated or is currently investigating for potential hazardous substance contamination for possible inclusion on the National Priorities list.

construction debris - concrete, brick, asphalt, and other such building materials discarded in the construction of a building or other improvements to property.

contaminated public wells - public wells used for drinking water that have been designated by a government entity as contaminated by toxic substances, (e.g. chlorinated solvents), or as having water unsafe to drink without treatment.

CORRACTS list - EPA's list of treatment, storage or disposal facilities subject to corrective action under RCRA.

degree of probability ()* - the *environmental professionals* opinion as to the likelihood of a *recognized environmental condition* to be or to cause an actual environmental impairment at or to the *subject site*.

demolition debris - concrete, brick, asphalt, and other such building materials discarded in the demolition of a building or other improvement to property.

drum - a container (typically, but not necessarily, holding 55 gal (208 L) of liquid) that may be used to store

hazardous substances or petroleum products.

dry wells - underground areas where soil has been removed and replaced with pea gravel, coarse sand, or large rocks. *Dry wells* are used for drainage, to control storm runoff, for the collection of spilled liquids (intentional and non-intentional) and wastewater disposal (often illegal).

due diligence - the process of inquiring into the environmental characteristics of a parcel of *commercial real estate* or other conditions, usually in connection with a commercial real estate transaction. The degree and kind of *due diligence* vary for different properties and differing purposes.

dwelling - structure or portion thereof used for residential habitation.

environmental audit - the investigative process to determine if the operations of an existing facility are in compliance with applicable environmental laws and regulations. The term environmental audit should not be used to describe Practice E1527 or E1528 although an environmental audit may include an *environmental site assessment* or, if prior audits are available, may be part of an *environmental site assessment*.

environmental lien - a charge, security, or encumbrance upon title to a property to secure the payment of a cost, damage, debt, obligation, or duty arising out of response actions, cleanup, or other remediation of *hazardous substances or petroleum products* upon a property, including (but not limited to) liens imposed pursuant to CERCLA 42 USC 9607(1) and similar state or local laws.

environmental professional - a person possessing sufficient training and experience necessary to conduct a *site reconnaissance*, *interviews*, and other activities in accordance with Practice E1527, and from the information generated by such activities, having the ability to develop opinions and conclusions regarding *recognized environmental conditions* in connection with the *property* in question. An individual's status as an environmental professional may be limited to the type of assessment to be performed or to specific segments of the assessment for which the professional is responsible. The person may be an independent contractor or an employee of the *user*.

environmental site assessment (ESA) - the process by which a person or entity seeks to determine if a particular parcel of real property (including improvements) is subject to *recognized environmental condition*. At the option of the *user*, an *environmental site assessment* may include more inquiry than constituting *appropriate inquiry* or, if the *user* is not concerned about qualifying for the *innocent landowner defense*, less inquiry than that constituting *appropriate inquiry*. An *environmental site assessment* is both different from and less rigorous than an *environmental audit*.

EPA - United States Environmental Protection Agency.

EPCRA - Emergency Planning and Community Right to Know Act (also known as SARA Title III). (42 USC 11001 *et seq.*).

ERNS - Emergency Response Notification System.

ERNS list - EPA's Emergency Response Notification System list of reported CERCLA hazardous substance releases or spills in quantities greater than the reportable quantity, as maintained at the National Response Center. Notification requirements for such releases or spills are codified in 40 CFR Parts 302 and 355.

ESA - *environmental site assessment* (different from an *environmental audit*)

Federal Register (FR) - publication of the United States government published daily (except for federal holidays and weekends) containing all proposed and final regulations and some other activities of the federal government. When regulations become final, they are included in the Code of Federal Regulations (CFR), as well as published in the Federal Register.

fill dirt - dirt, soil, sand, or other earth, that is obtained off-site, that is used to fill holes or depressions, create mounds, or otherwise artificially change the grade or elevation of real property. It does not include material that is used in limited quantities for normal landscaping activities.

fire insurance maps - maps produced for private fire insurance map companies that indicate uses of properties at specified dates and that encompass the property. These maps are often available at local libraries, historical societies, private resellers, or from the map companies who produced them.

FOIA - U.S. Freedom of Information Act (5 USC 552 *et seq.*).

hazardous substance - a substance defined as a hazardous substance pursuant to CERCLA 42 USC 9601(14), as interpreted by EPA regulations and the courts:

- "
- (A) any substance designated pursuant to Section 1321(b)(2)(A) of Title 33
 - (B) any element, compound, mixture, solution, or substance designated pursuant to Section 9602 of this title,
 - (C) any hazardous waste having the characteristics identified under or listed pursuant to Section 3001 of the Solid Waste Disposal Act (42 USC 6921) (but not including any waste the regulation of which under Solid Waste Disposal Act (42 USC 6901 *et seq.*) has been suspended by Act of Congress),
 - (D) any toxic pollutant listed under Section 1317(a) of Title 33,
 - (E) any hazardous air pollutant listed under Section 112 of the Clean Air Act (42 USC 7412), and
 - (F) any imminently hazardous chemical substance or mixture with respect to which the administrator (of EPA) has taken action pursuant to Section 2606 of Title 15. The term does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under Subparagraphs (A) through (F) of this paragraph, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas)."

hazardous waste - any hazardous waste having the characteristics identified under or listed pursuant to Section 3001 of the Solid Waste Disposal Act (42 USC 6921) (but not including any waste the regulation of which under the Solid Waste Disposal Act (42 USC 6901 *et seq.*) has been suspended by Act of Congress). The Solid Waste Disposal Act of 1980 amended RCRA. The RCRA defines a hazardous waste, in 42 USC 6903, as:

"a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may: (A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed."

hazardous waste contaminated sites - sites on which a release has occurred, or is suspected to have occurred, of any *hazardous substance*, *hazardous waste*, or *petroleum products*, and on which release or suspected release has been reported to a government entity.

innocent landowner defense - defense to CERCLA liability provided in 42 USC 9601(35) and 9607(b)(3). One

of the requirements to qualify for this defense is that party make "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice." There are additional requirements to qualify for this defense.

interviews - those portions of the Phase I Environmental Site Assessment in Practice E1527 that are contained in Sections 9 and 10 thereof and addresses questions to be asked of *owners* and *occupants* of the *property* and questions to be asked of local government officials.

key site manager - the person identified by the *owner* of a *property* as having good knowledge of the uses and physical characteristics of the *property*.

landfill - a place, location, tract of land, area, or premises used for the disposal of solid wastes as defined by state solid waste regulations. The term is synonymous with the term *solid waste disposal site* and is also known as a garbage dump, trash dump, or similar term.

local government agencies - those agencies of municipal or county government having jurisdiction over the *property*. Municipal and county government agencies include but are not limited to cities, parishes, townships, and similar entities.

local street directories - directories published by private (or sometimes government) sources that show ownership, occupancy, use of sites and/or by reference to street addresses. Often local street directories are available at libraries of local governments, colleges or universities, or historical societies.

LUST - leaking underground storage tank.

LUST sites - state lists of leaking underground storage tank sites. Section 9003 (h) of Subtitle I of RCRA gives EPA and states, under cooperative agreements with EPA, authority to clean up releases from UST systems or require owners and operators to do so.

major occupants - those tenants, subtenants, or other persons or entities each of which uses at least 40% of the leasable area of the *property* or any anchor tenant when the property is a shopping center.

material safety data sheet (MSDS) - written or printed material concerning a *hazardous substance* which is prepared by chemical manufacturers, importers, and employers for hazardous chemicals pursuant to OSHA's Hazard Communication Standard, 29 CFR 1910.1200 (g).

National Contingency Plan (NCP) - the National Oil and Hazardous Substances Pollution Contingency Plan, found at 40 CFR 300, that is the EPA's blueprint on how hazardous substances are to be cleaned up pursuant to CERCLA.

National Priorities List (NPL) - list compiled by EPA pursuant to CERCLA 42 USC 9605(a)(8)(B) of properties with the highest priority for cleanup pursuant to EPA's hazard ranking system.

NPDES - National Pollution Discharge Elimination System.

obvious - that which is plain or evident; a condition or fact which could not be ignored or overlooked by a reasonable observer while *visually* or *physically observing* the *property*.

occupants - those tenants, subtenants, or other persons or entities using the *property* or a portion of the *property*.

other historical sources - any source or sources other than those designated in 7.3.4.1 through 7.3.4.8 of Practice E1527 that are credible to a reasonable person and that identify past uses or occupancies of the property. The term includes records in the files, and/or personal knowledge of the *property owner* and/or *occupants*.

owner - generally the fee owner of record of the *property*.

PCBs - polychlorinated biphenyls.

petroleum exclusion - the exclusion from CERCLA liability provided in 42 USC 9601(14), as interpreted by the courts and EPA: "The term (hazardous substance) does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under Subparagraphs (A) through (F) of this paragraph, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas)."

petroleum products - those substances included within the meaning of the terms within the *petroleum exclusion* to CERCLA, 42 USC 9601(14), as interpreted by the courts and EPA, that is: petroleum, including crude oil or any fraction thereof that is not otherwise specifically listed or designated as a hazardous substance under Subparagraphs (A) through (F) of 42 USC 9601(14), natural gas, natural gas liquids, liquefied natural gas, and synthetic gas usable for fuel (or mixtures of natural gas and synthetic gas). (The word fraction refers to certain distillates of crude oil, including gasoline, kerosene, diesel oil, jet fuels, and fuel oil, pursuant to *Standard Definitions of Petroleum Statistics* (published by the American Petroleum Institute, 4th ed., 1988).

Phase I Environmental Assessment - the process described in Practice E1527.

physical setting sources - sources that provide information about the geologic, hydrogeologic, hydrologic, or topographic characteristics of a *property*.

pits, ponds, or lagoons - man-made or natural depressions in a ground surface that are likely to hold liquids or sludge containing *hazardous substances* or *petroleum products*. The likelihood of such liquids or sludge being present is determined by evidence of factors associated with the pit, pond, or lagoon, including, but not limited to, discolored water, distressed vegetation, or the presence of an obvious wastewater discharge.

practically reviewable - information that is practically reviewable means that the information is provided by the source in a manner and in a form that, upon examination, yields information relevant to the *property* without the need for extraordinary analysis of irrelevant data. The form of the information shall be such that the *user* can review the records for a limited geographic area. Records that cannot be feasibly retrieved by reference to the location of the *property* or a geographic area in which the *property* is located are not generally *practically reviewable*. Most databases of public records are *practically reviewable* if they can be obtained from the source agency by the county, city, zip code, or other geographic area of the facilities listed in the record system. Records that are sorted, filed, organized, or maintained by the source agency only chronologically are not generally *practically reviewable*. Listings in *publicly available* records which do not have adequate address information to be located geographically are not generally considered *practically reviewable*. For large databases with numerous facility records (such as RCRA hazardous waste generators and registered underground storage tanks), the records are not *practically reviewable* unless they can be obtained from the source agency in the smaller geographic area of zip codes. Even when information is provided by zip code for some large databases, it is common for an unmanageable number of sites to be identified within a given zip code. In these cases, it is not necessary to review the impact of all of the sites that are likely to be listed in any given zip code.

because that information would not be *practically reviewable*. In other words, when so much data is generated that it cannot be feasibly reviewed for its impact on the property, it is not *practically reviewable*.

preparer - the person preparing the *transaction screen questionnaire* pursuant to this practice, who may be either the user or the person to whom the user has delegated the preparation.

property - the real property that is the subject of the *environmental site assessment* described in Practice E1528. Real property includes buildings and other fixtures and improvements located on the *property* and affixed to the land. Also see *subject site*.

property tax files - the files kept for property tax purposes by the local jurisdiction where the *property* is located and includes records of past ownership, appraisals, maps, sketches, photos, or other information that is *reasonably ascertainable* and pertaining to the *property*.

PRP - potentially responsible party (pursuant to CERCLA 42 USC 9607(s)).

publicly available - information that is *publicly available* means that the source of the information allows access to the information by anyone upon request.

reasonably ascertainable - for purposes of both Practice E1527 and E1528 information that is *publicly available*, obtainable from its source within reasonable time and cost constraints, and *practically reviewable*.

recognized environmental conditions - the presence or likely presence of any *hazardous substances* or *petroleum products* on a *property* under conditions that indicate an existing release, a past release, or a material threat of a release of any *hazardous substances* or *petroleum products* into structures on the *property* or into the ground, groundwater, or surface water of the *property*. The term includes *hazardous substances* or *petroleum products* even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

RCRA - Resource Conservation and Recovery Act (12 amended, 42 USC 6901 *et seq.*)

RCRA generators - those persons or entities which generate hazardous wastes as defined and regulated by RCRA.

RCRA generators list - list kept by EPA of those persons or entities that generate hazardous wastes as defined and regulated by RCRA.

RCRA TSD facilities - those facilities on which treatment, storage, and/or disposal of hazardous wastes takes place, as defined and regulated by RCRA.

RCRA TSD facilities list - list kept by EPA of those facilities on which treatment, storage, and/or disposal of hazardous wastes takes place, as defined and regulated by RCRA.

recorded land title records - records of fee ownership, leases, land contracts, easements, liens and other encumbrances on or of the *property* recorded in the place where land title records are, by law or custom, recorded for the local jurisdiction in which the *property* is located. (Often such records are kept by a municipal or county recorder of clerk.) Such records may be obtained from title companies or directly from the local

government agency. Information about the title to the *property* that is recorded in a U.S. district court or any place other than where land title records are, by law or custom, recorded for the local jurisdiction in which the property is located, are not considered part of recorded land title records.

records of emergency release notifications (SARA 304) - Section 304 of EPCRA or Title II of SARA requires operators of facilities to notify their local emergency planning committee (as defined in EPCRA) and State Emergency Response Commission (as defined in EPCRA) of any release beyond the facility's boundary of any reportable quantity of any extremely hazardous substance. Often the local fire department is the local emergency planning committee. Records of such notifications are "Records of Emergency Release Notifications" (SARA 304).

records review - that part of the Phase I Environmental Site Assessment in Practice E1527 that is contained in Section 7 thereof and addresses which records shall or may be reviewed.

report - the written record of a *transaction screen process* as required by Practice E1527 or the written report prepared by the *environmental professional* and constituting part of a Phase I Environmental Site Assessment, as required by Practice E1527.

SARA - Superfund Amendments and Reauthorization Act of 1986 (amendment to CERCLA).

site inspection ()* - a physical, non-destructive inspection and inquiry to observe the existing conditions, business activities and operations on-site and on the *abutting* and *adjacent properties*. This activity is equivalent to the *site visit* portion of the *site reconnaissance*.

site reconnaissance - that part of the Phase I Environmental Site Assessment in Practice E1527 that is contained in Section 8 thereof and addresses what should be done in connection with the *site visit*. The *site reconnaissance* includes, but is not limited to, the *site visit* done in connection with such as Phase I Environmental Site Assessment.

site visit - the visit to the *property* during which observations are made constituting the *site reconnaissance* section the Phase I Environmental Site Assessment in Practice E1527 and the *site visit* requirement of the transaction screen process.

solid waste disposal site - a place, location, tract of land, area, or premises used for the landfill disposal of solid wastes as defined by state solid waste regulations. The term is synonymous with the term *landfill* and is also known as a garbage dump, trash dump, or similar term.

solvent - a chemical compound that is capable of dissolving another substance and may itself be a *hazardous substance* used in a number of manufacturing/industrial processes including, but not limited to, the manufacture of paints and coatings for industrial and household purposes, equipment clean-up, and surface degreasing in metal fabricating industries.

standard environmental records sources - those records specified in 7.2.1.1 of the Records Review Section of the Phase I Environmental Site Assessment of Practice E1527.

standard historical sources - those sources of information about the history of uses of *property* specified in 7.3.4 of the Records Review Section of the Phase I Environmental Site Assessment of Practice E1527.

standard physical setting source - a current USGS 7.5 minute topographic map (if any) showing the area on

which the *property* is located.

standard practice(s) - the activities set forth in either Practice E1527 or E1528 for the conduct of *environmental site assessments*.

standard sources - sources of environmental, physical setting, or historical records specified in the Records Review Section of the Phase I Environmental Site Assessment of Practice E1527.

state registered USTs - state lists of underground storage tanks required to be registered under Subtitle I, Section 9002 of RCRA.

subject site ()* - the *property*. The subject of the *environmental site assessment*. Sometimes used to avoid confusion as to the generic use of the work property in conjunction with off *subject site* locations.

sump - a pit, cistern, cesspool, or similar receptacle where liquids drain, collect, or are stored.

transaction screen questionnaire - the questionnaire provided in Section 6 of Practice E1527.

transaction screen process - the process described in Practice E1527.

TSD Facility - treatment, storage, or disposal facility.

underground storage tank (UST) - any tank, including underground piping connected to the tank, that is or has been used to contain *hazardous substances* or *petroleum products* and the volume of which is 10% or more beneath the surface of the ground.

USC - United States Code.

user - the party seeking to use the *transaction screen process* of E1528 or the Phase I Environmental Site Assessment of Practice E1527 to perform an environmental assessment of the property. A *user* may include, without limitation, a purchaser of property, a potential tenant of *property*, an owner of *property*, a lender, or a property manager.

USGS - United States Geological Survey.

USGS 7.5 Minute Topographic Map - the map (if any) available from or produced by the United States Geological Survey, entitled "USGS 7.5 Minute Topographic Map," and showing the *property*.

UST - *underground storage tank*.

virgin land ()* - the *property* prior to utility improvements, building structures or other similar utilization of the *property*. The condition of the *property* prior to the *properties obvious* first developed use.

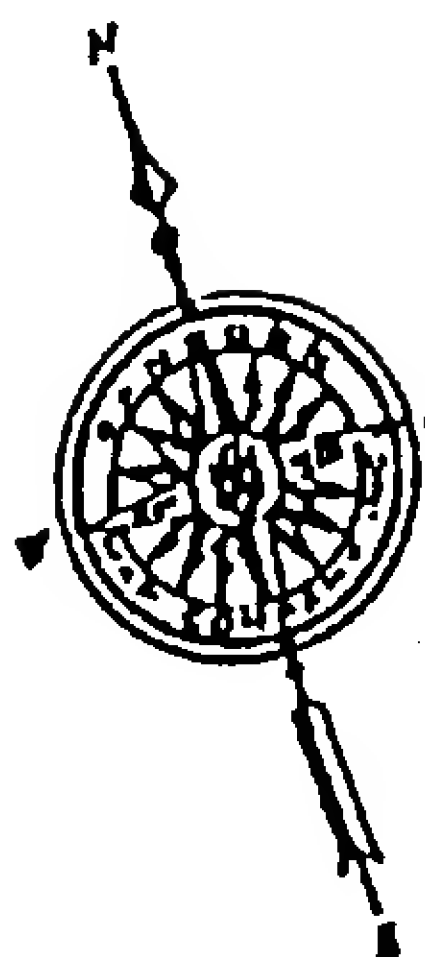
visually and or physically observed - during a *site visit* pursuant to the *transaction screen process* or a Phase I Environmental Site Assessment the term *visually and physically observed* means observations made by vision upon walking through a *property* and the structures located on it and observations made by the sense of smell, particularly observations of noxious or foul odors. The term walking through is not meant to imply that disabled persons who cannot physically walk may not conduct a *site visit*; they may do so by the means at their disposal.

for moving through the *property* and the structures located on it.

wastewater - water that is or has been used in an industrial or manufacturing process, conveys or has conveyed sewage, or is directly related to manufacturing, processing, or raw materials storage areas at an industrial plant. Wastewater does not include water originating on or passing through or adjacent to a site, such as stormwater flows, that has not been used in industrial or manufacturing processes, has not been combined with sewage, or is not directly related to manufacturing, processing, or raw materials storage areas at an industrial plant.

zoning land use records - those records of the local government in which the *property* is located indicating the uses permitted by the local government in particular zones within its jurisdiction. The records may consist of maps and/or written records. They are often located at the planning department of a municipality or county.

"N"
1978



IS SHOWN IN DESIGNATING FRAME
ELEMENTAL OUTLINES IN READING
MAPPING PRACTICE

STREET

IRREGULAR WIDTH

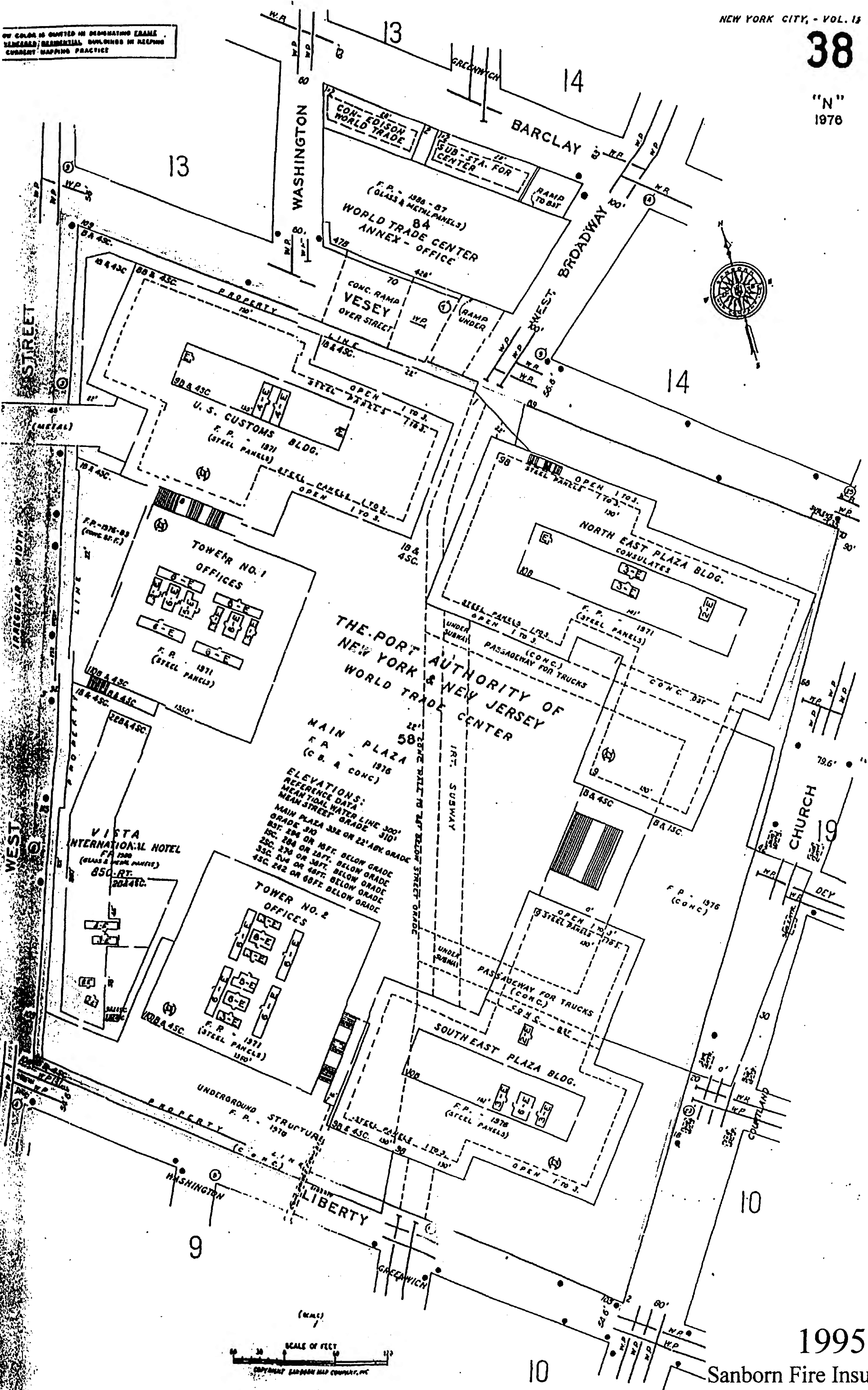
WEST

1996

Sanborn Fire Insurance Map

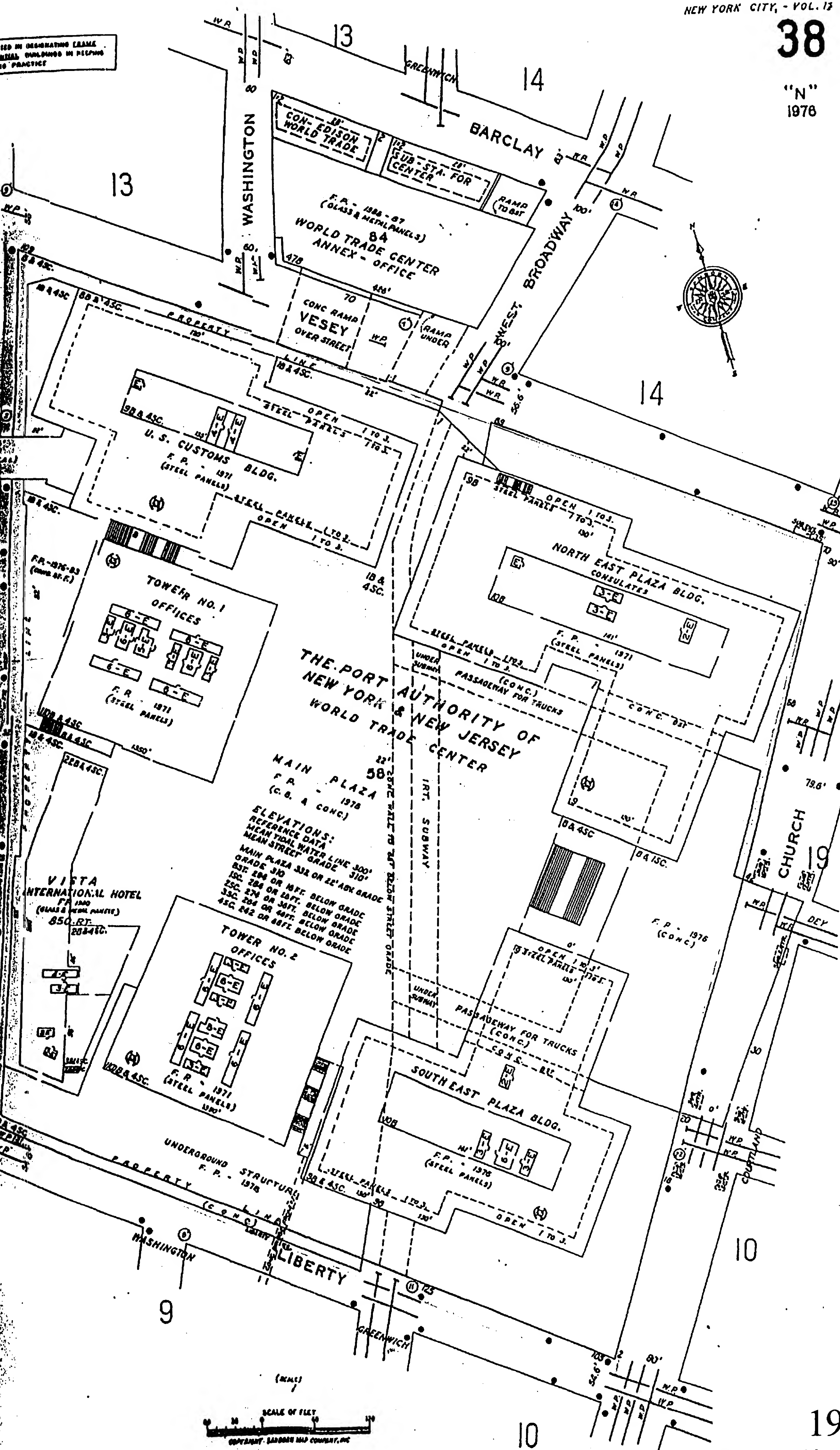
326

ON COLOR IS OBTAINED IN DEMONSTRATING FRAME
VARIABLES; MATERIALS; BUILDINGS IN KEEPING
CURRENT MAPPING PRACTICE





"N"
1978

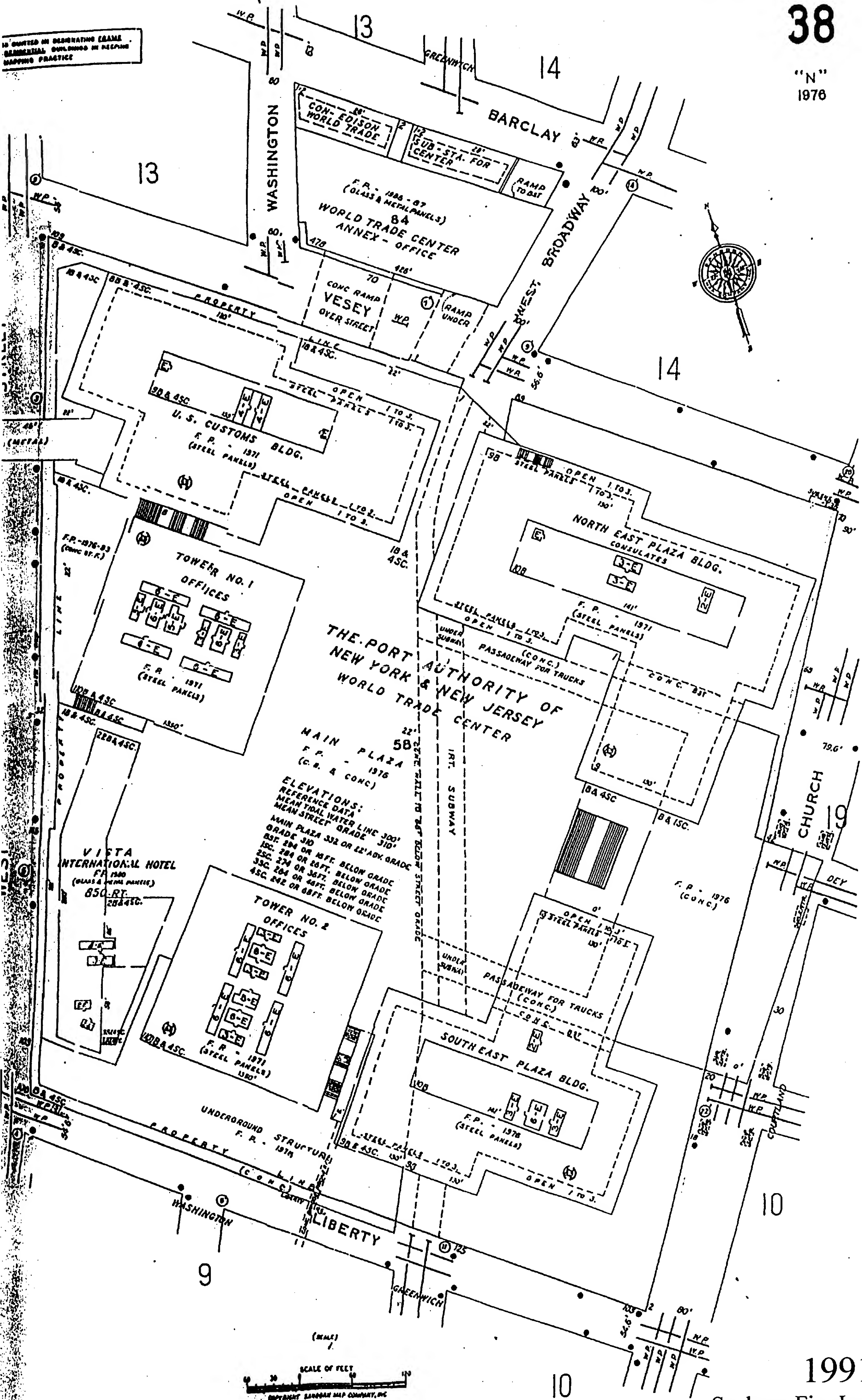


1992

38

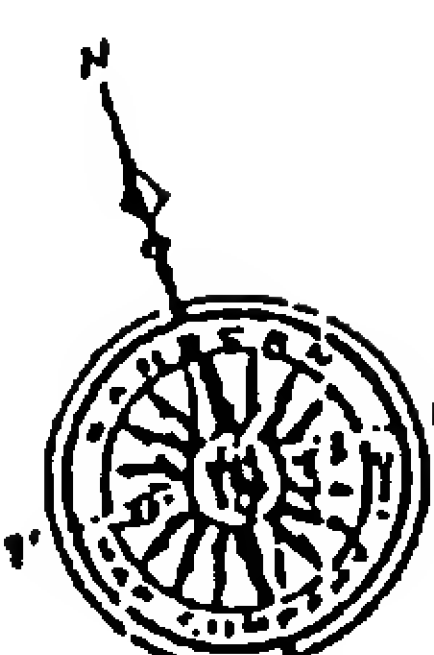
"N"
1976

IN QUOTED OR DESIGNATING (NAME)
GENERAL BUILDINGS IN PLANNING
MAPPING PRACTICE



1991

Sanborn Fire Insurance Map



NEW YORK CITY, - VOL. 13

38

"N"
1976

WASHINGTON

GREENWICH

LIBERTY

CHURCH

DEY

VESEY

BARCLAY

WEST BROADWAY

CON EDISON ELEC. SUB. STA.
FOR WORLD TRADE CENTER
F. P. - 1989
(CONC. PANELS)

84

13

14

14

10

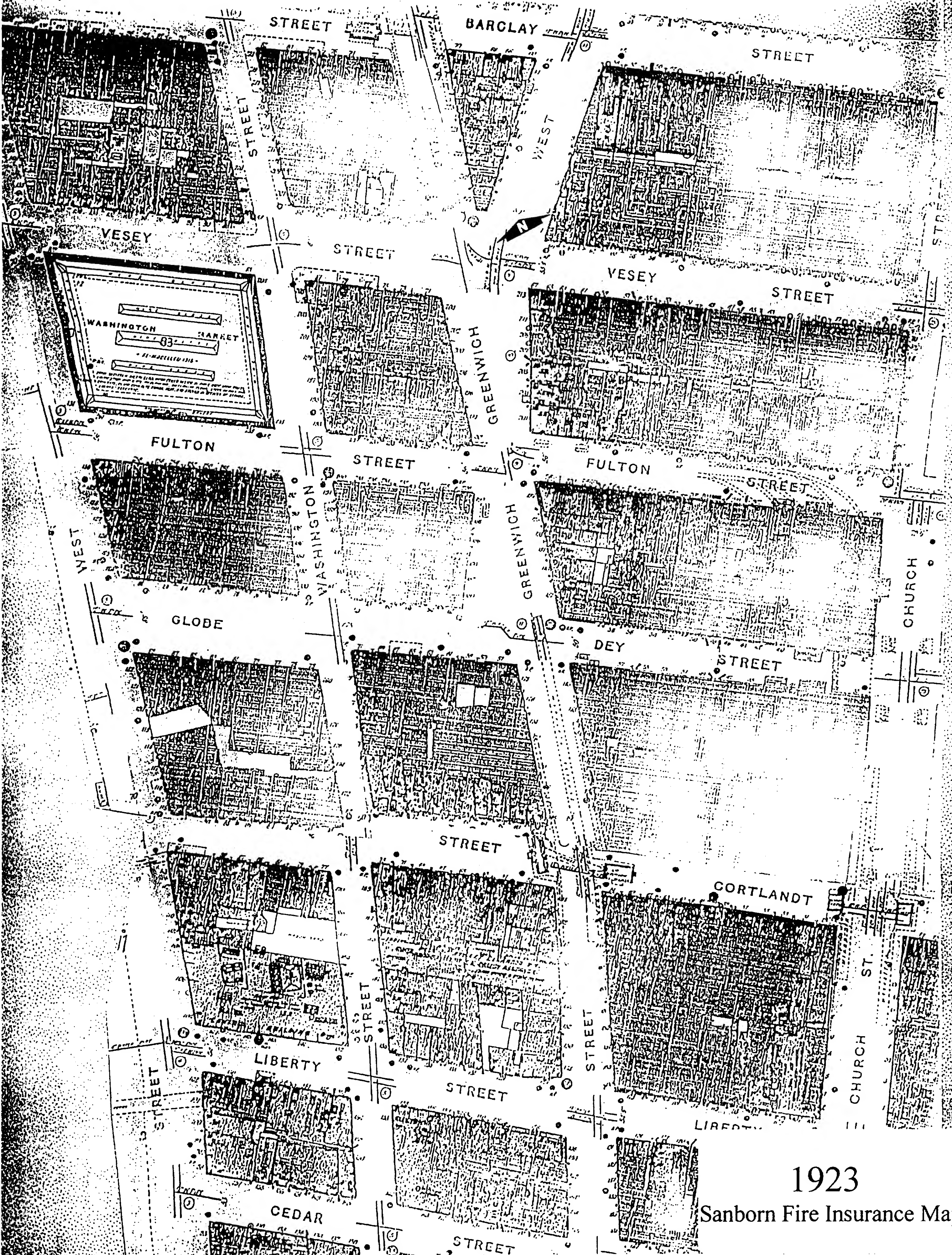
9

1980

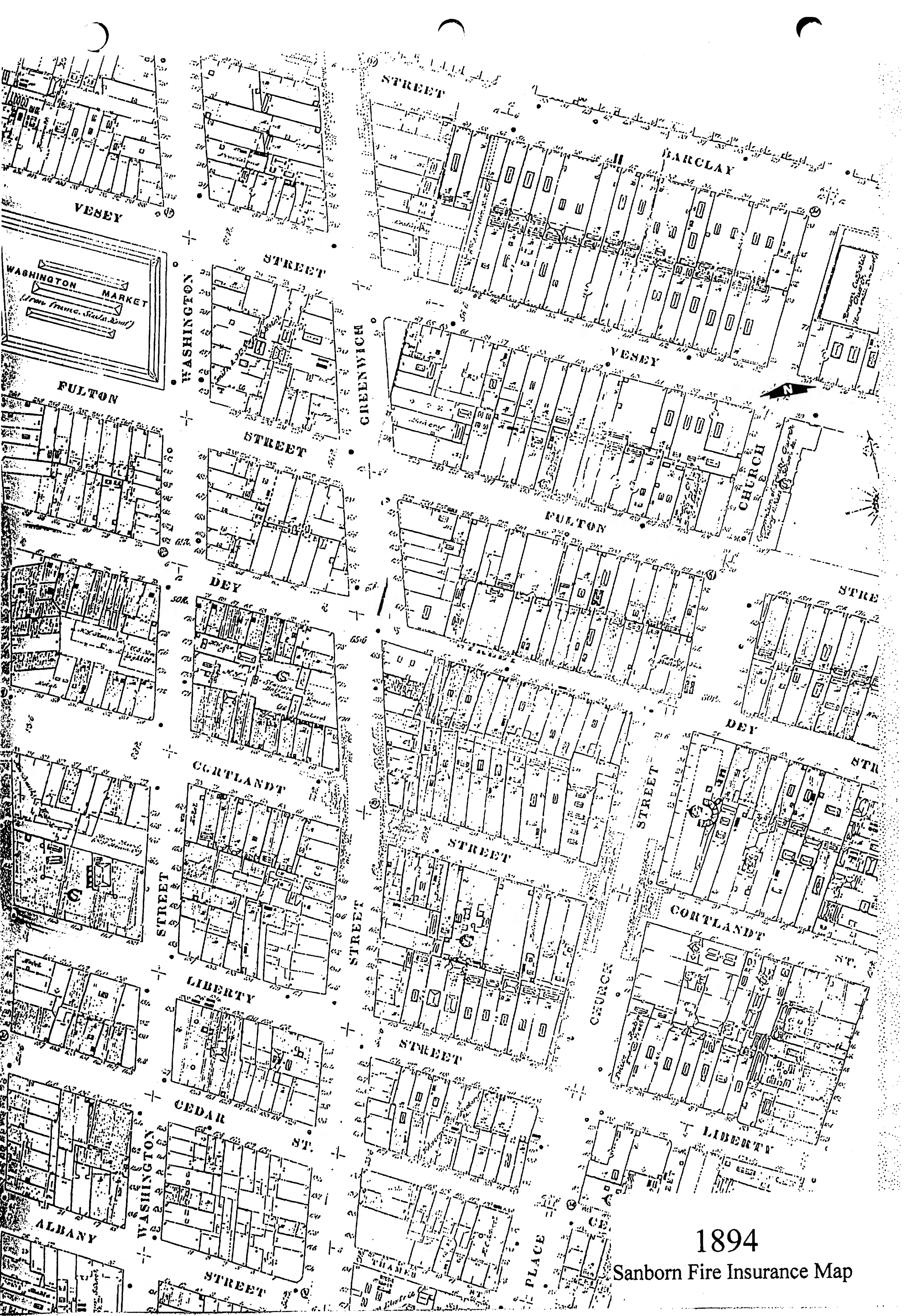
Sanborn Fire Ins



1950
Sanborn Fire Insurance Map



1923
Sanborn Fire Insurance Map



1894

Sanborn Fire Insurance Map

APPENDIX H-1.1

U.S. EPA Records



UNITED STATES ENVIRONMENTAL PROTECTION
AGENCY

EPA Region 2, 290 Broadway, 26th Floor (CD)
NEW YORK, NY 10007

Request Acknowledgment

October 1, 2000

R. WAYNE CRANDLEMERE
R.W. CRANDLEMERE & ASSOCIATES, INC.
549 COLUMBIAN ST
SUITE 305
Weymouth, MASS 02190

Date of Your Request: September 28, 2000	Date Your Request was Received: September 28, 2000
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SUBJECT:	U.S. CUSTOMS SVC & RADIUM LUMINOUS MATERIALS IN NYC
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The Agency has twenty (20) working days to respond to your request. You can expect a reply shortly after expiration of the twenty-working day period (October 27, 2000). Further correspondence on this subject should cite the following Request Identification Number:

02-RIN-02381-00

Freedom of Information Officer 2CD
Office:
Fax:



UNITED STATES ENVIRONMENTAL PROTECTION
AGENCY

EPA Region 2, 290 Broadway, 26th Floor (CD)
NEW YORK, NY 10007

Request Acknowledgment

October 5, 2000

R.W. CRANDLEMERE
R.W. CRANDLEMERE & ASSOCIATES
549 COLUMBIAN ST
SUITE 350
Weymouth, MA 02190

Date of Your Request:	Date Your Request was Received:
October 4, 2000	October 4, 2000

SUBJECT:	WORLD TRADE CENTER
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The Agency has twenty (20) working days to respond to your request. You can expect a reply shortly after expiration of the twenty-working day period (November 2, 2000). Further correspondence on this subject should cite the following Request Identification Number:

02-RIN-00022-01

Freedom of Information Officer 2CD
Office:
Fax:

APPENDIX H-1.2

NY State DEC Records



October 5, 2000

R. Wayne Crandlemere
R. W. Crandlemere & Associates, Inc.
Suite 305
549 Colombian Street
Weymouth, Ma 02190

RE: NYSDEC FOIL Request # 2 - 651 - 00

Dear FOIL Applicant:

We have processed your recent FOIL request and have found the enclosed information: 1 PBS facility report(s) and 2 spill fact sheet(s).

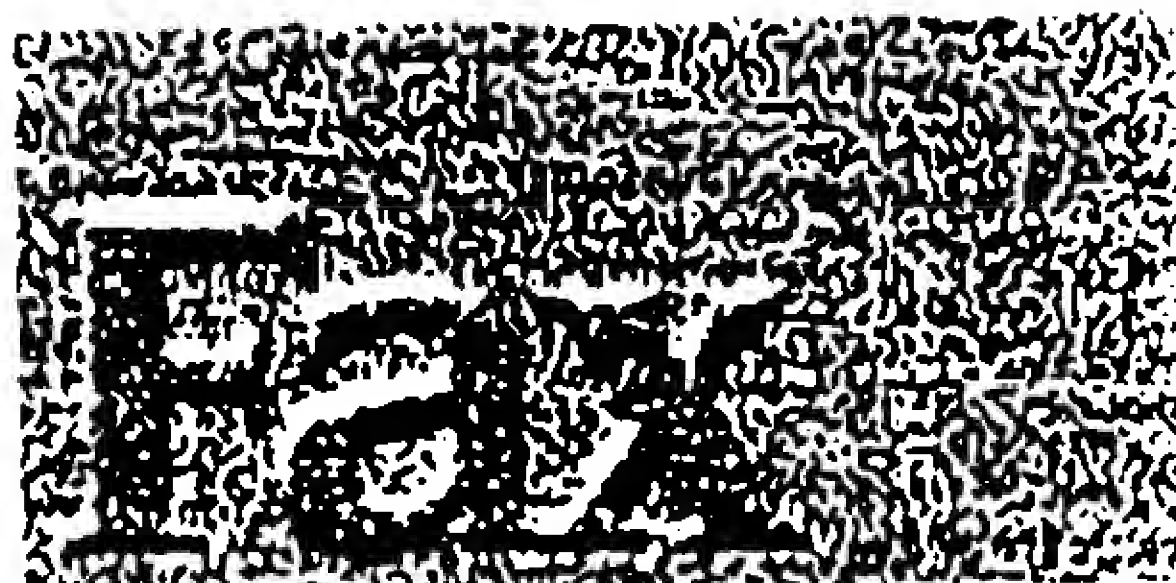
Thank you.

Sincerely,

Tom Kunkel
Director of Public Affairs
Region 2

File Searched:
See your letter attached

2-651-00
PBS/spills



Date: 10/4/00

To: State of New York DEC
Mr. Robert McDonald
Phone: 718-482-4908
Fax: 718-482-4954

From: R. W. Crandlemere & Associates, Inc.
Mr. R. Wayne Crandlemere
549 Columbian Street, Suite #305
Weymouth, MA 02190
Phone: 781-340-6161
Fax: 781-340-9191

Pages: 1

Subject: Information Request

Dear Mr. McDonald:

Please provide whatever information is available regarding the following listings:

- 1) LUST and Spill ID #2610078, NYC Fire Department Engine 10, 124 Liberty Street, New York, NY; and
- 2) Spill ID #8810172, Barclay St. & W. Broadway, Manhattan, NY (release by CON ED).

Both are listed as "Active" in my database search. Thank you for your anticipated assistance.

Petroleum Bulk Storage Data Sheet Key

KEY FOR SECTION B		STATUS		TANK TYPE		INTERNAL PROTECTION: Tank/Piping	
ACTION							
1. Initial Listing		1. In-service		1. Steel/Carbon Steel		0. None	
2. Add Tank		2. Temporarily out of service		2. Stainless Steel Alloy		1. Epoxy Liner	
3. Close/Remove Tank		3. Closed - Removed		3. Concrete		2. Rubber Liner	
4. Information Correction		4. Closed - In Place		4. Fiberglass Coated Steel		3. Fiberglass Liner (FRP)	
5. Recondition/Repair/Reline Tank		5. Tank Converted to Non-Regulated Use		5. Fiberglass Reinforced Plastic (FRP)		4. Glass Liner	
				6. Equivalent Technology		9. Other*	
						EXTERNAL PROTECTION: Tank/Piping	
						0. None	
						1. Painted/Asphalt Coating	
						2. Sacrificial Anode	
						3. Impressed Current	
						4. Fiberglass	
						5. Jacketed	
						6. Wrapped (Piping)	
						9. Other*	
						PIPING TYPE	
						0. None	
						1. Steel/Iron	
						2. Galvanized Steel	
						3. Fiberglass (FRP)	
						4. Copper	
						9. Other*	
						PRODUCT STORED	
						0. Empty	
						1. Landed Gasoline	
						2. Unlanded Gasoline	
						3. Nos. 1, 2, or 4 Fuel Oil	
						4. Nos. 5 or 6 Fuel Oil	
						5. Kerosene	
						6. Diesel	
						A. Lube Oil	
						B. Other Oil Used Oil(fuel)	
						C. Used Oil	
						9. Other*	
						* If other, please list on separate sheet including Tank Number	

PIPING LOCATION		TANK DETECTION		SPILL/OVERFILL PREVENTION	
0. None		0. None		0. None	
1. Aboveground		1. Interstitial Monitoring		1. Float Vent Valve	
2. Underground		2. Vapor Well		2. High Level Alarm	
3. Aboveground/Underground Combination		3. Groundwater Well		3. Automatic Shut-off	
SECONDARY CONTAINMENT		4. In Tank System		4. Product Level Gauge	
0. None		5. Concrete Pad w/channels		5. Catch Basin	
1. Vault		6. Double Bottom		6. Vent Whistle	
2. Double-Walled Tank		9. Other*		9. Other*	
3. Excavation Liner				DISPENSER	
4. Cut-off Walls				1. Submersible	
5. Impervious Underlayment				2. Suction	
6. Earthen Dike				3. Gravity	
7. Prefabricated Steel Dike					
8. Concrete Dike					
A. Synthetic Liner					
B. Natural Liner					
9. Other*					

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Petroleum Bulk Storage Program
Facility Information Report

Printed : 10/05/2000

PBS # : 2-357685

Site : ENGINE 10 / LADDER 10
124 LIBERTY STREET
124 LIBERTY STREET
MANHATTAN, NY 10006

County : NEW YORK Town : NEW YORK CITY
Latitude : N Longitude : W
SPDES# : CBS# :

Site Type : Other

Operator : COMPANY OFFICER (212) 570-4210
Emergency : F.D.N.Y. (718) 403-1580

Owner : NEW YORK CITY FIRE DEPARTMENT
9 METROTECH CTR.
BROOKLYN, NY 11201-3857
Phone : (718) 999-2094
Owner Type : Local Government
Reg Expires : 07/28/2003
Last Inspection : / /
Cert Printed : 12/21/1998
Mail : NEW YORK CITY FIRE DEPARTMENT-BLDG. MAINTENANCE
48-34 35TH STREET
LONG ISLAND CITY, NY 11101

Site Errors : Complete
Owner Error : Complete
Tank Errors : Complete

TankNo	TankLoc	Stat	DateIn	Capac (g)	Product	TankType	TankInt	TankExt	PipeLoc	PipeType	PipeInt	PipeExt	SecCont	Leak	OverFil	Disp	LastTest	NextTest	TStat
005	2	1	/ /	330	6	1	0	0	1	1	0	0	7	9	6	2	/ /	/ /	1
006	4	1	11/01/1998	1,000	6	5	3	4	2	3	3	4	2	14	25	2	/ /	/ /	1
001	4	4	12/01/1979	550	6	1	0	0	2	1	0	0	0	0	4	1		CLOSED: 11/01/1998	
002	4	4	12/01/1979	550	6	1	0	0	2	1	0	0	0	0	4	1		CLOSED: 11/01/1998	
003	4	4	12/01/1979	550	2	1	0	0	2	1	0	0	0	0	4	1		CLOSED: 11/01/1998	
004	4	4	12/01/1979	550	2	1	0	0	2	1	0	0	0	0	4	1		CLOSED: 11/01/1998	

NYSDEC SPILL REPORT FORM



DEC REGION# 2 (Long Island City) SPILL NUMBER 9610078
 SPILL NAME: NEW YORK CITY FD ENG 10 DEC LEAD: KRIMGOLD
 CALLER'S NAME: _____ NOTIFIER'S NAME: _____
 CALLER'S AGENCY: _____ NOTIFIER'S AGENCY: _____
 CALLER'S PHONE: _____ EXT. _____ NOTIFIER'S PHONE: _____ EXT. _____

SPILL DATE: 11/12/1996 TIME: 12:00
 CALL RECEIVED DATE: 11/12/1996 TIME: 18:12 RECEIVED BY CID #: 211

Material Spilled	Mat. Class	Am't Spilled	Units	Am't Recovered
1) <u>DIESEL</u>	<u>Pet-Haz-Other-Unk.</u>	<u>Unknown</u>	<u>Gal</u> - Lbs	<u>0</u>
2) <u>GASOLINE</u>	<u>Pet-Haz-Other-Unk.</u>	<u>Unknown</u>	<u>Gal</u> - Lbs	<u>0</u>
3) _____	<u>Pet-Haz-Other-Unk.</u>	_____	<u>Gal</u> - Lbs	_____
4) _____	<u>Pet-Haz-Other-Unk.</u>	_____	<u>Gal</u> - Lbs	_____

<u>SPILL LOCATION</u>	<u>POTENTIAL SPILLER</u>
PLACE: <u>NEW YORK CITY FD ENG 10</u>	NAME: <u>NEW YORK CITY DDC</u>
STREET: <u>124 LIBERTY ST</u>	STREET: _____
T/C/V: <u>NEW YORK</u> CO: <u>NEW YORK</u>	CITY: _____
CONTACT: <u>LT LYNCH</u>	STATE: _____ ZIP: _____
PHONE: <u>(212) 570-4210</u> EXT. _____	CONTACT: <u>JERRY ALBERTI</u>
	PHONE: <u>(718) 391-1073</u> EXT. _____

<u>SPILL CAUSE</u>	<u>SPILL SOURCE</u>
<input type="checkbox"/> Human Error <input type="checkbox"/> Traffic Accident <input type="checkbox"/> Equipment Failure <input type="checkbox"/> Vandalism <input type="checkbox"/> Tank Test Failure <input type="checkbox"/> Housekeeping <input type="checkbox"/> Deliberate <input type="checkbox"/> Abandoned Drums <input checked="" type="checkbox"/> <u>Tank Failure</u> <input type="checkbox"/> Tank Overfill <input type="checkbox"/> Other <input type="checkbox"/> Unknown	<input type="checkbox"/> Gas Station <input type="checkbox"/> Passenger Vehicle <input type="checkbox"/> Comm. Vehicle <input type="checkbox"/> Tank Truck <input type="checkbox"/> Private Dwelling <input type="checkbox"/> Vessel <input type="checkbox"/> Railroad Car <input type="checkbox"/> Major Facility <input type="checkbox"/> Non-Maj Facility <input type="checkbox"/> Comm/Indust <input checked="" type="checkbox"/> <u>Non-Comm/Instit</u> <input type="checkbox"/> Unknown

<u>RESOURCE AFFECTED</u>	<u>SPILL REPORTED BY</u>
<input checked="" type="checkbox"/> <u>On Land</u> <input type="checkbox"/> In Sewer <input type="checkbox"/> Groundwater <input type="checkbox"/> Surface Water <input type="checkbox"/> Air	<input type="checkbox"/> Responsible Party <input type="checkbox"/> Affected Persons <input type="checkbox"/> Police Department <input type="checkbox"/> Fire Department <input type="checkbox"/> Tank Tester <input type="checkbox"/> DEC <input type="checkbox"/> Citizen <input type="checkbox"/> Health Dept. <input type="checkbox"/> Local Agency <input type="checkbox"/> Federal Gov't <input checked="" type="checkbox"/> <u>Other</u>

WATERBODY: _____
 CALLER REMARKS: caller reports doing drilling in area and found contaminated soil
caller believes ground water to be affected also

<u>PBS Number</u>	<u>Tank Number</u>	<u>Tank Size</u>	<u>Test Method</u>	<u>Leak Rate</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

PRIMARY CONTACT CALLED DATE: _____ TIME: _____ hrs. REACHED DATE: _____ TIME: _____ hrs.
 SECONDARY CONT. CALLED DATE: _____ TIME: _____ hrs. FAXED BY CID#: _____

PIN #	T & A	Cost Center	ISR to Central Office
Cleanup Ceased	Meets St'ds	NO	Last Inspection
Penalty	NO		
RP-CUI	ENF-INIT	INVS-COM	CAP
UST Trust Eligible	NO	Site: A <u>B</u> C D E	Resp. Party 1 2 <u>3</u> 4 5 6
Reg Close Date			

Created on 11/12/1996 Last Updated on 12/04/1996 Is Updated? NO
 Date Printed: 10/05/2000 EDO DATA INPUT []

NYSDEC SPILL REPORT FORM



DEC REGION# 2 (Long Island City) SPILL NUMBER 8810172
 CALL NAME: BARCLAY ST & W BROADWAY DEC LEAD: ENGELHARDT
 CALLER'S NAME: _____ NOTIFIER'S NAME: _____
 CALLER'S AGENCY: _____ NOTIFIER'S AGENCY: _____
 CALLER'S PHONE: _____ EXT. _____ NOTIFIER'S PHONE: _____ EXT. _____

SPILL DATE: 08/25/1988 TIME: 12:00
 CALL RECEIVED DATE: 05/04/1995 TIME: 12:00 RECEIVED BY CID #: _____

Material Spilled	Mat. Class	Am't Spilled	Units	Am't Recovered
1) DIELECTRIC FLUID	<u>Pet-Haz-Other-Unk.</u>	<u>3,000</u>	<u>Gal</u> - Lbs	<u>0</u>
2) _____	Pet-Haz-Other-Unk.	_____	Gal - Lbs	_____
3) _____	Pet-Haz-Other-Unk.	_____	Gal - Lbs	_____
4) _____	Pet-Haz-Other-Unk.	_____	Gal - Lbs	_____

SPILL LOCATION	POTENTIAL SPILLER
PLACE: <u>BARCLAY ST & W BROADWAY</u>	NAME: <u>CON ED</u>
STREET: <u>BARCLAY ST & W BROADWAY</u>	STREET: _____
T/C/V: <u>MANHATTAN</u> CO: <u>NEW YORK</u>	CITY: _____
CONTACT: _____	STATE: _____ ZIP: _____
PHONE: _____ EXT. _____	CONTACT: _____
	PHONE: _____ EXT. _____

SPILL CAUSE	SPILL SOURCE
<input type="checkbox"/> an Error <input type="checkbox"/> Tank Test Failure* <input type="checkbox"/> Tank Failure <input type="checkbox"/> Traffic Accident <input type="checkbox"/> Housekeeping <input type="checkbox"/> Tank Overfill <input checked="" type="checkbox"/> <u>Equipment Failure</u> <input type="checkbox"/> Deliberate <input type="checkbox"/> Other <input type="checkbox"/> Vandalism <input type="checkbox"/> Abandoned Drums <input type="checkbox"/> Unknown	<input type="checkbox"/> Gas Station <input type="checkbox"/> Private Dwelling <input type="checkbox"/> Non-Maj Facility <input type="checkbox"/> Passenger Vehicle <input type="checkbox"/> Vessel <input checked="" type="checkbox"/> <u>Comm/Indust</u> <input type="checkbox"/> Comm. Vehicle <input type="checkbox"/> Railroad Car <input type="checkbox"/> Non-Comm/Instit <input type="checkbox"/> Tank Truck <input type="checkbox"/> Major Facility <input type="checkbox"/> Unknown

RESOURCE AFFECTED	SPILL REPORTED BY
<input checked="" type="checkbox"/> <u>On Land</u> <input type="checkbox"/> Groundwater <input type="checkbox"/> Air <input type="checkbox"/> In Sewer <input type="checkbox"/> Surface Water**	<input checked="" type="checkbox"/> <u>Responsible Party</u> <input type="checkbox"/> Tank Tester <input type="checkbox"/> Local Agency <input type="checkbox"/> Affected Persons <input type="checkbox"/> DEC <input type="checkbox"/> Federal Gov't <input type="checkbox"/> Police Department <input type="checkbox"/> Citizen <input type="checkbox"/> Other <input type="checkbox"/> Fire Department <input type="checkbox"/> Health Dept.

WATERBODY: _____

CALLER REMARKS: Reported by Con Ed as required under Consent Order.

<u>PBS Number</u>	<u>Tank Number</u>	<u>Tank Size</u>	<u>Test Method</u>	<u>Leak Rate</u>

PRIMARY CONTACT CALLED DATE: _____ TIME: _____ hrs. REACHED DATE: _____ TIME: _____ hrs.
 SECONDARY CONT. CALLED DATE: _____ TIME: _____ hrs. FAXED BY CID#: _____

PIN #		T & A		Cost Center		ISR to Central Office	
Cleanup Ceased		Meets St'ds		NO		Last Inspection	
Penalty		NO					
RP-CUI		ENF-INIT		INVES-COM		CAP	
UST Trust Eligible		NO		Site: A <u>(B)</u> C D E		Resp. Party 1 2 <u>(3)</u> 4 5 6	
Reg Close Date							

APPENDIX H-1.3

Prior Environmental Report Regarding WTC Explosion and Fire

Environmental Investigation & Assessment Report

**World Trade Center Explosion and Fire
New York, New York
February 26, 1993**

Prepared for

**The Office of Environmental Policy & Management
Port Authority of New York & New Jersey**

Prepared by

**GR Environmental Inc.
Environmental and Industrial Hygiene Consultant Managers
Washington, D.C.**

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1.0 EXECUTIVE SUMMARY

On February 26, 1993, a bomb exploded under the World Trade Center complex at 12:18 p.m., heavily impacting the infrastructure and the occupants. The hours immediately following the blast saw the assembling of hundreds of professionals designed to recover and rebuild the complex. The Office of Environmental Policy & Management of the Port Authority of New York and New Jersey retained the services of GR Environmental Inc. to advise and assist in the environmental assessment of the conditions within the WTC Complex.

The assessment was conducted in three phases. Phase one involved sampling for airborne fiber concentrations. Phase two, concurrent with phase one, involved a comprehensive toxicological assessment of the smoke residue. Phase three involved follow up air sampling as a result of the toxicological evaluation and identifying other potentially hazardous conditions. Additional activities in phase three included monitoring the blast area for oxygen, carbon monoxide, hydrogen sulfide, combustible, freon, and hydrocarbons; area inspections; performing respiratory fit testing; issuing respirators; and providing an on-site asbestos laboratory.

The results of the air samples collected in phase one indicated that airborne fiber concentrations were within acceptable parameters according to the Occupational Safety and Health Administration (OSHA) permissible exposure limits (PEL); although, these samples were collected as area samples and not personal samples. GR Environmental recommended that transmission electron microcopy (TEM) analysis be performed on these samples and that additional sampling be conducted according to the TEM methodology.

The results of the toxicological evaluation enabled the environmental management team to develop a sampling strategy for the various identified contaminants. The toxicological results indicated slightly elevated levels of lead, cadmium, and chromium. The Port Authority Office of Environmental Policy & Management required that GR Environmental conduct air samples throughout the complex for the metals identified, nuisance dust, and silica. These tests were collected primarily as area samples and found to be below the OSHA PEL's.

The additional activities conducted during phase three enabled the Port Authority to maintain a safe work environment during the reconstruction.

2.0 INTRODUCTION

On February 26, 1993, a bomb exploded in the sub-basement parking garage of the World Trade Center (WTC) complex. The extensive damage caused by the explosion and resultant fire sent thick black smoke into the entire WTC complex of office buildings, hotel, shopping concourse and commuter rail lines. Since the explosion and fire occurred at 12:18 p.m. on a weekday, the buildings were occupied and an evacuation ensued.

The dense smoke followed various pathways entering the stairways and elevator shafts and migrated throughout the complex, thus effecting the 150,000 occupants.

The Port Authority retained GR Environmental Inc. (GRE), to coordinate and manage an environmental team to support the Office of Environmental Policy & Management in the environmental assessment of the condition within the World Trade Center. GRE's team of technical professionals included toxicologists, certified industrial hygienists, chemical engineers, mechanical engineers, environmental engineers, health and safety specialists, and environmental consultants.

The investigation was designed in several phases. Phase one involved sampling for airborne asbestos fiber concentrations. The second phase required performing a comprehensive toxicological assessment of the soot-like material generated throughout the World Trade Center complex by the explosion and fire. The follow-up phases involved environmental monitoring of those chemical constituents found either as trace materials within the first phase of sampling or conditions that evolved during the clean-up and reconstruction of the blast site.

GRE's environmental team consisted of HP Environmental Inc., Clayton Environmental Inc., AMA Analytical, and National Surface Cleaning (NSC). HP Environmental Inc. was retained to assist in the toxicological phase. Clayton provided a staff of professionals and technicians to evaluate various areas and collect the specified samples. AMA Analytical provided a 24 hour onsite asbestos laboratory. NSC, a NY state and city licensed hazardous materials contractor, was retained to provide environmental supplies and equipment as directed by the Office of Environmental Policy & Management of the Port Authority.

The Port Authority contracted directly with Clayton's Environmental Laboratory in Edison, New Jersey to provide analytical service for the project. Roche Analytical of Richmond, Virginia was retained by GR Environmental to perform back up quality assurance analysis.

This report summarizes the activities and the sample results.

3.0 SITE DESCRIPTION

3.1 DESCRIPTION OF WORLD TRADE CENTER COMPLEX

The World Trade Center is a complex of seven high-rise buildings located in lower Manhattan. The buildings surround a 5 acre plaza. The buildings and plaza are constructed over a 16 acre based structure. The WTC complex contains approximately 12 million square feet of useable space, including a shopping mall, and several levels of underground parking. The main buildings are the 110 stories tall "twin towers." In addition there is a 47 story building, a 22 story hotel (Vista), two 9 story buildings and one 8 story building. Most of the space is used as commercial office space, except for the Vista Hotel, and the shopping concourse which contains 60 stores. The base structure of the WTC complex consists of six levels (B-1 through B-6). Truck loading docks for the complex are located on B-1. Maintenance shops, mechanical rooms, the command center, and various offices were also located on B-1. Levels B-2, B-3 and B-4 contained public parking (the complex could accommodate 2,000 vehicles) and mechanical rooms. Levels B-3, B-4, and B-5 have a trilevel mechanical room in the center. Level B-6 contained utility systems and the path train tracks.

3.2 VISUAL SITE ASSESSMENT

The explosion occurred on the B-2 level and created a crater that extended from the plaza level down to the B-6 level of the basement. The plaza floor slab was cracked and projected upward. The level below was the concourse level of the Vista Hotel, where the ceiling collapsed. The concrete slab in the function room of the Vista Hotel collapsed forming a large hole in excess of 20-ft by 15-ft. The crater from the B-1 level to the B-2 level expanded to approximately 60-ft by 100-ft. On the B-2 level the crater exceeded 100-ft by 100-ft. The B-3 and B-4 basement sections, in the area below the explosion, were combined levels to accommodate the mechanical systems located on B-5. Thus as the reinforced steel concrete slabs and debris collapsed to the B-5 level it impacted all of the mechanical, electrical, and plumbing systems. The B-1 to B-4 levels was also a garage area.

The explosion created a fire that consumed various building products, building systems, vehicles, stored chemicals used in building operations, office equipment, furniture, and other such items. There were approximately 60 vehicles that were torn apart by the explosion or burned by the resultant fire. These vehicle's components (fuel, tires, lead batteries, etc.) contributed to the combustion byproducts. Because the explosion penetrated vertically into the first floor of the

Vista Hotel and shattered glass walls separating the hotel from the lobby of Tower 1, dense black smoke entered the lobby and migrated into the elevator shafts. Smoke was forced horizontally throughout the basement and entered additional elevator shafts. Once in the shafts, the smoke spread vertically and began to fill occupied areas of the complex. The most heavily impacted buildings were Towers 1 and 2, because of the chimney effect of high rise buildings.

Observations revealed fragments of structural components thrown throughout the area of the blast site, twisted and deformed steel beams, building debris, plumbing lines broken and leaking, electrical conduit broken, and building mechanical equipment cracked and leaking fluids. The entire area was covered in a fine particulate that varied in color from a pink to black with various shades of grey. The particulate was observed on all horizontal and most vertical surfaces within all basement levels, on all floors within Tower 1 and the lower floors of Tower 2.

At the time of the explosion the temperature was below freezing and a light snow was falling.

4.0 PROJECT OBJECTIVES

4.1 BACKGROUND

GR Environmental's technical team began to assemble about 8:00 p.m. on the evening of February 26, 1993. An initial meeting with the Port Authority's Office of Environmental Policy & Management identified some immediate environmental issues:

1. The asbestos previously identified by the Port Authority throughout the WTC complex may have become airborne.
2. The explosion and fire may have impacted various chemicals and materials that were stored or utilized for building operations.
3. The building occupants had been exposed to smoke of unknown chemical constituents.

GR Environmental advised the Office of Environmental Policy & Management that additional environmental issues would rapidly evolve as the remediation and reconstruction commenced.

4.2 OBJECTIVES

The investigation and sampling was conducted in three phases. These three phases outlined the primary objectives for the environmental assessment services provided by GR Environmental.

- | | |
|-----------|--|
| Phase I | Identify airborne asbestos fiber concentrations |
| Phase II | Conduct a toxicological assessment |
| Phase III | Monitor for constituents identified in toxicological assessment and identify and address potentially hazardous conditions that may develop |

Concurrent with phase I, airborne fiber sampling, the second investigative phase involved a comprehensive toxicological assessment of the smoke residue present within the interior of the WTC complex. This assessment included an evaluation of the escape routes utilized by the building occupants during the fire to determine potential exposures and to assess the condition of the areas for airborne and surface contamination.

As a result of the analytical data collected in Phases I and II, and the ongoing environmental investigations the objectives in Phase III were:

1. Determine the airborne concentration of potentially hazardous material which resulted from the explosion.
2. Monitor the conditions within the blast area to identify if a health hazard developed and determine the steps for mitigation.
3. Monitor and assess conditions within the WTC complex to determine the level of protective equipment necessary for cleanup crews to wear.
4. Provide workers with proper respiratory protection while working in the "blast site".
5. Provide a 24-hour onsite asbestos laboratory

5.0 ENVIRONMENTAL PROJECT REQUIREMENTS

5.1 INTRODUCTION

In order to accomplish the objectives a method of investigation was designed. This method of investigation defined the environmental project requirements for GR Environmental Inc.. The environmental project requirements included sampling protocols and visual assessments:

1. Air sampling
2. Continuous and periodic real time monitoring for gases
3. Area inspections and observations
4. Respiratory fit testing and supplying respirators
5. Providing an on-site asbestos laboratory

5.2 AIR SAMPLING

5.21 Introduction

Air sampling was conducted to identify airborne hazardous substances, verify compliance levels, and ensure the adequacy of prescribed personal protective equipment and work practices.

Two type of air samples were routinely collected: personal and environmental (area) samples.

Personal air samples were collected to represent the airborne concentration of a dust, vapor or gas in the volume surrounding a workers nose and mouth. This breathing zone sample is defined to be an approximately hemispheric volume surrounding the nose and mouth of the worker. The samples were collected using a battery-operated pump worn on the worker's belt with a cassette attached via a sampling tube. The pump was calibrated to a flow rate according to the substance being sampled.

Environmental (area) air sampling was conducted to obtain a statistically representative sample of air in the space. Environmental samples were collected with low flow and high flow volume pumps. The calibration range varied depending on the type of pump selected and the chemical constituent sampled.

The air sampling conducted by GR Environmental Inc. included:

1. airborne fiber concentrations
2. airborne metal concentrations for lead, cadmium, chromium, iron, and manganese
3. airborne dust and silica concentrations

5.22 Airborne Asbestos Fiber Concentrations

Sampling for airborne asbestos fibers was the first type of air sampling to be conducted following the explosion. Sampling strategies designed by the Office of Environmental Policy & Management were divided into two categories; exterior (ambient) and interior. GR Environmental was retained to collect area air samples within the interior of the complex. Air sampling commenced at approximately 12:00 a.m. on the morning of February 27, 1993, and was conducted through out both towers, the concourse, and several adjacent areas. Multiple area samples were generally collected on each floor sampled to obtain a representative sampling scheme. Periodically throughout the project GR Environmental conducted personal monitoring to establish an 8-hour time weighted average (TWA) concentration utilizing a series of two, three or four different filter samples. GR Environmental's initial responsibility for area airborne fiber sampling was completed on February 28, 1993; however, periodic area and personal samples were conducted throughout the reconstruction.

Air sample collection and measurement followed the NIOSH Membrane Filter Method No. 7400 for the Determination of Fibers in Air as required in the Occupational Safety and Health Administration (OSHA) Standard 29 CFR 1910.1001, Appendix A ORM (Mandatory). Personal and area samples were collected open faced on a 25mm 0.8 micron mixed cellulose ester millipore filter with a 50mm extension cowl.

Samples were collected utilizing low volume pumps calibrated with flow rates between 1.7 to 4.0 liters per minute, or high volume pumps calibrated with flow rates between 8.2 to 13.2 liters per minute.

The sample analysis was conducted by the Port Authority's inhouse accredited asbestos laboratory and Clayton Environmental Laboratory. The mobile onsite AMA Analytical Laboratory did not analyze samples collected by GR Environmental, Inc.

5.23 Airborne Metals Concentration

A toxicological assessment of the soot was performed in order to properly ascertain what contaminants the soot may have contained. Following the release of the results of the toxicology study, the Office of Environmental Policy & Management directed GR Environmental to conduct personal and area air sampling for lead, cadmium, and chromium (see toxicological report in the appendix). This air sampling commenced February 28 and continued until March 26, 1993.

Sampling strategy for cadmium, chromium, and lead was developed by the Office of Environmental Policy & Management and GR Environmental. Each tower was divided into sampling zones by the Office of Environmental Policy & Management. The first zone includes floors 1 through 44, the second zone includes floors 45 through 78, and the third zone includes floors 79 through 110. Sampling was conducted in each of the three zones within each tower, the stairwells A, B, and C, the lobbies, the concourse, and the platforms of the Port Authority Trans-Hudson system. The basements were treated separately.

Personal air sampling for iron oxide and manganese was conducted within the blast site during welding activities.

Air samples for metals including cadmium, chromium, lead, iron oxide, and manganese were collected on millipore 0.8 micrometer cellulose ester filters and on pre-weighed polyvinyl chloride filters in a 37 mm cassette. Each sample was collected using a pre and post calibrated, low volume sampler with a flow rate between 1 and 4 liters per minute. All samples were collected in accordance with NIOSH method 7082 or OSHA Method 121 and reported in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

5.24 Airborne Dust and Silica Concentrations

The explosion impact generated a blanket of dust throughout the WTC towers. Total nuisance dust samples were collected to detect airborne concentrations of dust and silica as the material was disturbed during clean up and reconstruction.

Personnel from the Office of Environmental Policy & Management collected samples for total nuisance dust from February 27 to March 3, which were submitted by GR Environmental to Roche Analytics Laboratory for analysis. GR Environmental continued sampling for total nuisance dust and sampled for silica from March 4 to March 25 on the concourse level, lobbies of both towers, various floors in both towers and the basement levels. Ambient air levels were also

measured as a baseline for reference to interior concentrations.

Total nuisance dust samples were obtained on preweighed 37 mm mixed cellulose ester filters and on 5 micron polyvinyl chloride membrane filters. Each sample was collected at 1.7 liters per minute using a pre and post calibrated low volume sampler and in accordance with NIOSH Method 0500. Filters were preweighed and postweighed to determine net mass gain. Results are reported in milligrams per cubic meter (mg/m^3).

The total nuisance dust samples were also analyzed for the percent free silica (quartz, cristobalite, tridymite). The method utilized for this analysis was NIOSH analytical method, ID-7500 which utilizes x-ray diffraction scanning for silica peaks.

5.3 CONTINUOUS AND PERIODIC MONITORING

To ensure a safe respirable work environment for recovery and reconstruction personnel, continuous monitoring was performed around the periphery of the blast site. Continuous monitoring included identifying gas levels for oxygen, carbon monoxide, hydrogen sulfide, and combustible gas concentrations. These gas levels were monitored to ensure that workers could perform their duties safely and without causing another explosion or fire due to high levels of combustible gases. Monitoring data was manually recorded every five minutes. This monitoring was conducted from March 2 to April 2, 1993.

Continuous gas monitoring for carbon monoxide, combustibles, hydrogen sulfide, and oxygen were performed using GSX 4000 meters (Four Runners). These meters were calibrated before each shift and following battery replacement. Calibration for these meters included "zeroing" the machine with ambient air before entering the testing area.

Periodic monitoring of the air was conducted for freon and hydrocarbons. Freon, is used as a fluid in refrigeration mechanisms. The type of freons identified in the WTC complex were Chlorofluorocarbon (R-12) and Hydrochlorofluorocarbon (R-22). Freon, not only damages the ozone layer, but in high concentrations in the presence of a flame (such as a welding torch) can create a deadly gas called phosgene. Freon was monitored to detect leaks from the coolant tanks. Periodic monitoring was also conducted to identify elevated levels of hydrocarbons. It was speculated that a number of fuel tanks or "packages" had become separated from vehicles and settled under the debris. The monitoring was conducted to identify any

elevated levels to prevent an explosion. Hydrocarbon monitoring also assisted in identifying some concerns with waste water lines. Periodic monitoring was conducted between March 6 to April 2, 1993.

5.4 AREA INSPECTIONS AND OBSERVATIONS

As a result of the constantly changing environment in the blast site and the continuous discovery of new information regarding the explosion and fire, EMD required frequent investigations and inspections. These investigations, inspections, or observations included:

1. visual observations of work practices
2. HVAC inspection and observation
3. sanitary inspection of a restaurant for biocontamination
4. periodic inspections of the tsp sampling

Visual Observations of Work Practices

Technical staff, while conducting continuous monitoring activities, also provided work site review inspections. This task consisted of completing a work site review inspection form denoting the type of work, number of workers and associated activities. These work area inspections were designed to identify work practices that had the potential to develop into a hazardous situation.

HVAC Inspection and Testing

The HVAC system for the Towers shut down at the moment of the explosion. In an effort to identify the extent the soot residue had impacted the condition of the HVAC system, inspections and testing were designed by the PA Engineering Division and the Office of Environmental Policy & Management. GRE was directed to conduct a limited survey of the smoke residue on at least one floor in each sampling zone. Zone 1 consisted of floors 1-44, zone 2 consisted of floors 45-78, and zone 3 included floors 79-110. The inspection protocol included noting particulate concentrations in the elevator lobbies, mechanical rooms, base of doorways, stairwells, diffusers, and the peripheral/convection heating units.

The second step involved performing a limited operation of the system. The PA Engineering Division designed two tests. The first test was run with the HVAC system operating with no recirculating air (100 % fresh air intake) and the second was run with normal winter air recirculation. The first 24 floors of Tower 1 were ventilated during these tests. In addition to the operation of the system, the Port

Authority Engineering staff laid large white sheets of paper on the floor under various selected diffusers for visual determinations of the dust concentration generated during these tests. GRE was directed by the Office of Environmental Policy & Management to collect air samples for dust, lead, cadmium, and chromium on the 14th, 17th, 22nd, and 24th floors.

Restaurant Sanitary Inspection

The WTC complex operates several restaurants and with the loss of power to refrigeration units, food began to spoil. The blast occurred during lunch time, and the immediate evacuation left food exposed in kitchens and dinning areas. The potential for molds and bacteria to cultivate and become airborne increased each hour the food remained unrefrigerated. GRE recommended that cleaning crews be dispatched to clean and dispose of the food to prevent a health hazard from developing. The Office of Environmental Policy & Management directed GRE to conduct a general sanitary inspection of the restaurant "Windows on the World," located on the 105th and 106th floors in Tower 1, following this cleaning.

Inspection of TSP Equipment

Total suspended particulate sampling (TSP) was conducted by the Port Authority between March 12 and March 17. The Office of Environmental Policy & Management requested GRE to conduct period inspections of the equipment. GRE developed a form which recorded the time of the inspection, the temperature, barometric pressure and weather conditions. There were occasions when the samplers were disabled. One such occasion occurred on March 15, when the electrical cord, on the ambient sampler located on the plaza, was cut by snow removal equipment.

5.5 RESPIRATORY FIT TESTING

To ensure that workers were properly protected from inhalation dangers while working in the blast site, respirators were issued. The type of respirator selected was based on the area air sampling results. The area air sample results indicated minimal airborne concentrations of metals, fibers and dust in the work area; therefore, workers were provided with half-face negative pressure respirators to use when working in the blast site. Respirators were assigned after GRE received a medical authorization from the on-site physician and a qualitative fit test was performed. This test ensures that the size and shape of the respirator properly fits the worker in order to obtain a proper level of protection.

Respiratory fit testing was performed 24-hours a day from March 5 through March 24. The fit testing was performed in accordance with the guidance provided by the OSHA representative onsite.

Dust masks were also distributed to workers, such as security and cleaning personnel, that did not have to work in the blast site.

On the evening of February 26, 1993, prior to the commencement of GRE's environmental assessment, self contained breathing apparatuses were provided to Port Authority personnel for the purpose of conducting air sampling for airborne fiber concentrations.

5.6 ONSITE ASBESTOS LABORATORY

The Port Authority had its own accredited in-house laboratory which analyzed airborne fiber samples for the assessment; however, due to the excessive work load generated from the large number of samples collected, the Port Authority requested that GR Environmental mobilize an onsite laboratory with airborne fiber and bulk material analysis capabilities. The laboratory selected, AMA Analytical, mobilized on March 5 and provided 24-hour analytical services for air and bulk asbestos samples. The mobile laboratory operated out of WTC building number 5 on the plaza level.

GRE did not review samples submitted to the AMA onsite asbestos laboratory by the Port Authority. At the direction of the Port Authority analytical results were not to be submitted to GRE.

6.0 QUALITY ASSURANCE AND QUALITY CONTROL

6.1 SAMPLE COLLECTION

Air samples were collected according to analytical methods approved by the Occupational Safety and Health Administration (OSHA) or the National Institute of Occupational Safety and Health (NIOSH). The methods utilized for sampling each chemical constituent lists the required parameters, such as; the type of filter media to be used, number of blanks to be collected, the minimum number of liters of air to be collected, and at what rate the air was to be collected.

The identification number for the asbestos samples was designed by personnel from the Office of Environmental Policy & Management. The remaining sample identification numbers were designed by GRE and included the technicians initials, date of collection, and the sample number for that shift. All information was maintained on a field data sheet.

Field blanks were collected for each analytical method requested for each shift. Field blanks are sampling devices that have been exposed to the same ambient conditions as the devices to be used for taking the samples; except that no contact with the air to be sampled is allowed. The blank is analyzed by the same method as that used for the samples. The number of blanks was defined by the NIOSH or OSHA analytical method selected.

The custody of samples, "chain of custody", passing from the field technician to the laboratory sample custodian, with intermittent involvement by carrier agents, was maintained for each sample. The chain of custody forms used were typically those developed by the Port Authority. Copies of the chain of custody form, particularly for the Port Authority Asbestos Laboratory were often not provided as a result of a lack of available photocopying equipment.

6.2 INSTRUMENTATION AND CALIBRATION

During the WTC emergency, field calibration was accomplished under the best available conditions. Measurements and calibration of equipment should be conducted in an area that provides control on environmental conditions to the degree necessary to assure required precision and bias. The calibration area should be reasonably free of dust, vapor, vibration, and radio frequency interferences. In addition there should be adequate "clean" electrical power and lighting. The calibration area should be approximately 68 to 73° F and 35 to 50% relative humidity. Although these are considered basic requirements recognized by the

National Bureau of Standards, these conditions are difficult to achieve in an emergency environment, particularly an environment impacted by an explosion.

Low volume battery operated air sampling pumps (Gilian, MSA, and Sensidyne) used to collect area and personal samples for airborne fibers, metals, dust, and silica were calibrated before and after each sampling period using a rotameter. In some circumstances, pumps were directly calibrated using the Gilibrator or a Buck Calibrator, a primary calibration source. Rotometers used on the project were calibrated on a weekly basis using a Gilibrator or Buck calibrator.

High volume pumps (BGI) were calibrated before and at the completion of sampling using a rotameter, which had been previously calibrated against a primary bubble meter, Gilibrator or Buck Calibrator.

The Gastech 4000, a direct reading instrument, is used to detect levels of oxygen, carbon monoxide, hydrogen sulfide, and combustibles. The ranges displayed for each of the gases are:

Oxygen:	0 - 25.0%
Combustibles:	0 - 100%
Carbon Monoxide:	0 - 250 ppm
Hydrogen Sulfide:	0 - 125 ppm

The GX4000 instruments were either owned by the Port Authority or rented from Hazco. Initial calibration was performed by the rental company or by EMD. The GX 4000's were calibrated every two weeks utilizing span gas and zeroed against ambient air prior to every work shift.

The Gastech Model RI-413 Halocarbon Indicator, a direct reading instrument, was used to detect levels of freon. The instruments were initially calibrated utilizing span gasses at the manufacturing facility prior to shipment and once during the project.

The TIP 5650 Halogen Leak Detector, a direct reading instrument, was used to identify freon leaks around valves, seals, and gauges on the refrigerant tanks. This instrument must be factory calibrated annually. These detectors were calibrated prior to shipment from the manufactures in January 1993.

The Foxboro Century OVA 128 (Organic Vapor Analyzer), a direct reading instrument, is a flame ionization detector (FID) used to identify low concentrations of hydrocarbons. This instrument is particularly sensitive to methane, ethane,

cyclohexane, octane, ethylene, cyclohexene, xylene, toluene, and benzene. The equipment was initially calibrated by the rental company, Hazco and by EMD. Calibration, utilizing span gas, was conducted twice during the project.

The Buck calibrator and the Gilibrator are primary standard instruments used to ensure accurate measurements by setting the standard of flow rate on the low volume sampling pumps.

6.3 DUPLICATE, "SIDE BY SIDE" SAMPLING

At the direction of the Office of Environmental Policy & Management, duplicate, "side-by-side" samples for both metals (lead, cadmium, and chromium) and dust were collected and sent to AIHA (American Industrial Hygiene Association) accredited laboratories. The two laboratories were Roche Analytics Laboratory, located in Richmond, Virginia and Clayton Environmental Laboratory, located in New Jersey. Clayton was the primary source for laboratory services for the analysis of environmental samples collected by the Port Authority and GR Environmental, Inc.

The samples were compared by establishing the absolute % difference, relative range. This measure of dispersion is a useful measure of variation when there are only two samples to compare, $n = 2$. It is defined as the range of two measurements divided by their average and multiplied by 100 to express the result as a percentage.

$$d^* = \frac{|X_1 - X_2|}{(X_1 + X_2)/2} \times 100$$

(*d might also be defined for sample sizes other than $n=2$ that is $d = R/X$)

In the case of two observations the range is directly related to the standard deviation ($R = \sqrt{2} s$) thus the percent difference is $\sqrt{2}$ times the RSD. The percent difference is a useful measure of variation, because of the frequency of using repeat or duplicate measurements in air pollution applications.

A total of fifteen sets of "side by side" air samples were collected, six for dust and nine for metals (see comparison results table 1). Interlaboratory results which are at the detection limit level could not be statistically compared since these detection limits are dependent upon the individual laboratory methodology. Only the results representing real numbers were calculated. The analytical differences are apparent in the analysis of dust.

Table 1
Analytical Results for "Side by Side" Sampling and Percent Difference

<u>Location</u>	<u>Date</u>	<u>Constituent</u>	<u>Clayton's Lab Results</u>		<u>Roche's Lab Results</u>		<u>Percent % Difference</u>	
			<u>(1st shift)</u>	<u>(2nd shift)</u>	<u>(1st shift)</u>	<u>(2nd shift)</u>	<u>(1st shift)</u>	<u>(2nd shift)</u>
B1 Vista	3/25	lead	<0.002	<0.001	-	<0.001	-	-
		cadmium	<0.0002	<0.001	-	<0.001	-	-
		chromium	<0.001	<0.001	-	<0.001	-	-
B2	3/25	lead	<0.002	<0.001	-	<0.001	-	-
		cadmium	<0.0002	<0.001	-	<0.001	-	-
		chromium	<0.001	<0.001	-	<0.001	-	-
B6	3/25	lead	<0.002	0.002	-	0.002	-	0
		cadmium	<0.0002	<0.001	-	<0.001	-	-
		chromium	<0.001	<0.001	-	<0.001	-	-
B1 Vista	3/26	lead	<0.003	<0.003	<0.001	<0.002	-	-
		cadmium	<0.0003	<0.0003	<0.001	<0.002	-	-
		chromium	<0.001	<0.001	<0.001	<0.001	-	-
		dust	0.8	0.1	0.595	0.329	29	106
B2	3/26	lead	<0.003	<0.003	<0.002	0.002	-	-
		cadmium	<0.0003	<0.0003	<0.001	<0.001	-	-
		chromium	<0.001	<0.001	<0.002	<0.002	-	-
		dust	3.4	6.7	4.92	7.17	36	7
B6	3/26	lead	<0.003	0.096	<0.002	0.003	-	187
		cadmium	<0.0003	<0.0003	<0.001	<0.001	-	-
		chromium	<0.001	<0.001	<0.002	<0.002	-	-
		dust	2.1	2.1	2.53	0.131	19	176

7.0 CONCLUSIONS

7.1 PROJECT DIFFICULTIES

Measurements of the concentration of pollutants, either in the ambient atmosphere or in the emissions from stationary sources, are assumed to be representative of the conditions existing at the time of the sample collection. The extent to which this assumption is valid depends on the sources of error and bias inherent in the collection, handling, and analysis of the sample.

Besides the sampling and analytical error and bias, human error may be introduced any time between sample collection and sample reporting. Included among the human errors are such things as failure of the technician to record pertinent information, mistakes in reading an instrument, mistakes in calculating, results, and mistakes in transposing data from one record form to another.

The atypical nature of the work site created several additional variables that affected the collection of the sampling data. Some of the external factors that impacted the sampling process included:

1. severe temperatures
2. no electrical power
3. no elevators
4. accumulation of debris
5. psychological stress

The initial temperatures the first three days within the blast site and the complex were below freezing. The cold temperatures reduced dexterity and thus created difficulties in calibration and setting up equipment for sampling. In addition the extreme cold increased the necessity of rotation of personnel from the blast site. Extreme temperature can cause flow faults in air sampling pumps and this may have contributed to some of the pump failures. The affect the low temperatures had on the sampling media is unknown.

The lack of electrical power for lighting and operation of equipment necessitated modifying methods of sample collection. The lack of lighting increased the safety hazard and the number of individuals necessary to collect and record data. The lack or limited access to electrical power required resorting to battery operated equipment.

When considering the lack of elevators in a 110 story facility it is apparent that the ascent and descent were physically stressful. Therefore, it became critical to coordinate teams for distribution of the equipment, and transportation to the sampling locations. There were occasions when the technical staff was physically stressed to the extent that a backup team had to be dispatched to collect delayed samples. As a result of the delay in retrieving the cassettes, the samples became so overloaded with particulate and that the laboratories were unable to perform analysis.

There were many occasions in which the technical staff was either the first to enter a severely damaged area or they worked side by side with the FBI, ATF, NYPD, and NYFD to assess the working environment. Under such conditions the technical staff was exposed to extreme risks. As a result of the accumulation of debris and the increased safety hazard, the speed at which data was collected was considerably reduced.

Because the explosion was a deliberate action, suspected at the time to be a terrorist act, the tension in the environment was stressful. Working in such an environment adds another factor that must be considered in the investigative assignment. There were occasions pumps were relocated, stolen or shut down with notes attached indicating that "monitoring microphones and cameras are not permitted on the project." There was an incident in which a sampling pump was reported to the FBI and ATF for fear that it was explosive in nature. Eighteen low and one high volume sampling pumps disappeared from their sampling locations during the first 5 days of the project. There were occasions technical staff had to rotate out of their sampling schedule as a result of the physical discomfort that resulted from working within the blast site, and in close proximity to the last missing victim.

7.2 PERMISSIBLE EXPOSURE LIMITS

Permissible Exposure Limits (PEL's) referred to in this assessment, with the exception of materials for which there are separate standards, are those established by the U.S. Occupational Safety and Health Administration (OSHA) in the 1989 PEL update. At the time of the writing of this report, the 1989 PEL standard had been vacated by the U.S. Court of Appeals for the Eleventh Circuit, and is presently not enforceable by OSHA officials.

An OSHA guidance document to its compliance officers was issued on August 5, 1993, providing direction on the use of the General Duty clause (Section (5)(a)(1) of the Occupational Safety and Health Act of 1970) in citing employers for exposures to those chemicals for which PEL's have been reduced or eliminated by

the court's action. The General Duty clause requires that an employer

"...shall furnish to each of his employees, employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm..."

OSHA compliance officers have the latitude to enforce the vacated exposure standards when a recognized hazard exists, when an employer's knowledge of the hazard can be demonstrated, and when serious health effects at the cited exposure levels are documented.

For the purposes of this assessment all personal exposures will continue to be compared to the 1989 PEL values. In cases where OSHA has not established or proposed a specific exposure limit for a work place chemical, an established Threshold Limit Value (TLV), as published by the American Conference of Governmental Industrial Hygienists (ACGIH), will be used. In cases where neither of these organizations have established work place limits, Recommended Exposure Limits (REL's), established by the National Institute for Occupational Safety and Health (NIOSH), are cited.

7.3 STANDARD LIMITS FOR EVALUATION

There are no current indoor air quality standards to assist in evaluating chemical exposure levels; therefore, the criteria utilized to evaluate the levels of the various chemical constituents includes the limits established by OSHA, NIOSH, ACGIH, New York State and New York City regulatory agencies.

Interpretation is difficult when an area sample is expected to represent a personal sample. The limits outlined by OSHA, NIOSH and ACGIH are those typically developed from a manufacturing environment. This method of collecting the data is within an individual's breathing zone and not in a stationary location at varying heights.

The 1989 Federal Standard for asbestos sets the personal exposure limit (PEL) at 0.2 fibers, per cubic centimeter of air (f/cc), and an action limit of 0.1 f/cc. The New York State and New York City asbestos programs have established clearance criteria for area air sampling for asbestos removal sites. New York City requires <0.01 f/cc and New York State requires ≤ 0.01 f/cc.

The OSHA PEL for the constituents analyzed are as follows:

Table 2

<u>Chemical</u>	<u>OSHA PEL</u>	<u>NIOSH/ACGIH limits</u>
Asbestos	0.2 f/cc	0.1 f/cc
Cadmium	0.2 mg/m ³	0.01 mg/m ³
Chromium	1.0 mg/m ³	0.5 mg/m ³
Dust (Total)	15.0 mg/m ³	10.0 mg/m ³
Iron Oxide	10.0 mg/m ³	5.0 mg/m ³
Lead	0.05 mg/m ³	<0.1 mg/m ³
Manganese	1.0 mg/m ³	1.0 mg/m ³
Silica	0.1 mg/m ³	0.05 mg/m ³

The OSHA permissible exposure for silica dust is a function of the percentage of silica in the dust sample obtained.

7.4 AIRBORNE FIBER CONCENTRATIONS

Sampling for airborne asbestos fiber concentrations was conducted for nine days. The initial series of samples collected on February 27 and 28, approximately 111, were designed to assess the airborne concentrations throughout the interior of the WTC complex. The remaining 7 days of sampling data, collected between March 7 and March 21, provided personal exposure evaluations for several of the Port Authorities' contractors and additional area assessment evaluations for EMD.

Due to a lack of photocopying equipment, GRE's staff manually duplicated the sampling information and the chain of custody sheets on February 27 and 28. All sample results from the Port Authority asbestos laboratory were reported to GRE verbally. GRE did not receive any laboratory data to confirm the verbal data.

The verbal data is summarized in table 3. The personal samples collected were *below* the OSHA standards. Utilizing the OSHA personal exposure limits to evaluate the area samples, four of the 123 (excluding overloaded samples) samples collected exceeded this limit; however, they were *below* the OSHA 30 minute excursion limit of 1.0 fibers per cubic centimeter and below the limits of detection. If the New York state or city asbestos regulatory limits are considered then 101 of the 123 area samples (includes overloaded samples) collected exceeded the 0.01 fibers per cubic centimeter criteria. The difficulty in using these comparisons is that

only 15% of the samples were collected utilizing high volume pumps (unavailability of electrical power in the areas prevented this methodology), a collection protocol outlined in the New York state and city regulations.

Each comparison has its limitations. OSHA requires samples to be collected on an individual within their breathing zone utilizing a low volume sampling pump - these samples were generally not collected on an individual, but as a stationary area sample. The state and local regulations are designed for asbestos abatement projects utilizing high volume sampling pumps - these samples were generally collected utilizing low volume sampling pumps.

Table 3
Airborne Fiber Concentrations
February 26 - March 21, 1993

<u>Total</u>	<u>Description</u>	<u>Results (f/cc)</u>
		<u>Range</u>
158	Total Samples collected by GRE and analyzed by the	
152	Samples collected by GRE analyzed by PA-ALS	<0.01 - <0.423
6	Samples collected by GRE analyzed by Clayton	<0.01 - <0.423
35	Samples voided as a result of tampering, pump failure, theft, or the inability to access sample for collection	0.01 - 0.09
15	Personal samples collected by GRE	0.017 -0.049
22	Area samples collected in Tower 1	<0.005 - <0.210
28	Area samples collected in Tower 2	<0.007 - <0.423
42	Area samples collected in the basement levels (B-1 to B-6)	<0.005 - <0.024
3	Tower 1	overloaded
1	Tower 2	overloaded
12	Basement	overloaded

REGULATORY LIMITS: OSHA = 2 FIBERS/CUBIC CENTIMETER, NYC = <.01 F/CC, NYS = ≤ .01 F/CC

In addition, the analysis performed on these samples, phase contrast microscopy, only identifies the fiber concentrations and does not specifically identify asbestos. Therefore, as a result of the increased number of elevated or overloaded samples GR Environmental recommended that TEM (Transmission Electron Microscopy) analysis be performed on the samples, to characterize the asbestos concentration. It was further recommended that sampling for the identification of fibers be conducted according to the NYC, NYS, or EPA TEM protocols.

7.5 AIRBORNE CONCENTRATIONS FOR METALS

Air samples for lead, cadmium, and chromium were collected as area samples, from February 28 to March 26. The data is summarized in table 4. Only 5 of the 250 samples collected were voided. Samples were voided as a result of tampering, malfunction, or theft of the sampling pump.

There are no regulatory indoor air quality recommended compliance limits for airborne concentrations of lead, chromium or cadmium; therefore, the OSHA personal exposure levels are used as a comparison. All samples were below the OSHA limits for lead, chromium, and cadmium.

Table 4
Airborne Metal Concentrations

LEAD CONCENTRATIONS		
<u>Total</u>	<u>Description</u>	<u>Results (mg/m³)</u>
250	Lead (Pb) samples collected throughout entire complex	<0.001 - <0.020
241	Lead (Pb) samples analyzed by Clayton Laboratory	<0.001 - <0.020
9	Lead (Pb) samples analyzed by Roche Analytical Laboratory	<0.001 - 0.002
63	Tower 1 lead (Pb)	<0.002 - <0.020
24	Tower 2 lead (Pb)	<0.002 - 0.020
104	Basement Levels (B-1 to B-6) lead (Pb)	<0.001 - <0.020
4	Path Train lead (Pb)	<0.005
37	Concourse lead (Pb)	<0.002 - <0.010
13	Ambient lead (Pb)	<0.002 - <0.010
5	Voids	
CHROMIUM CONCENTRATIONS		
<u>Total</u>	<u>Description</u>	<u>Results (mg/m³)</u>
222	Chromium (Cr) samples collected throughout entire complex	<0.0001 - <0.010
55	Tower 1 Chromium (Cr)	<0.0001 - <0.010
17	Tower 2 Chromium (Cr)	<0.0001 - 0.0009
104	Basement Levels (B-1 to B-6) Cr	<0.0008 - <0.008
29	Concourse Cr	<0.0001 - <0.006
12	Ambient Cr	<0.0001 - <0.007
5	Voids	
CADMIUM CONCENTRATIONS		
<u>Total</u>	<u>Description</u>	<u>Results (mg/m³)</u>
222	Cadmium (Cd) samples collected throughout entire complex	<0.0001 - <0.001
55	Tower 1 Cd	<0.0002 - <0.002
17	Tower 2 Cd	<0.002 - 0.0002
104	Basement Levels (B-1 to B-6) Cd	<0.0001 - <0.001
29	Concourse Cd	<0.0002 - <0.001
12	Ambient Cd	<0.0002 - <0.001
5	Voids	

In addition, four personal samples for iron oxide and manganese were collected on workers during welding activities. The iron oxide results ranged from 0.005 to 0.13 mg/m³, well below the OSHA PEL of 10 mg/m³. The manganese analytical results ranged from <0.002 to 0.009 mg/m³, well below the OSHA PEL of 1 mg/m³.

7.6 AIRBORNE CONCENTRATIONS FOR TOTAL NUISANCE DUST AND SILICA

Selected areas were sampled for levels of airborne particulates. There are no regulatory limits for concentrations of particulates within indoor environments. OSHA has established permissible exposure limits at 15 milligrams per cubic meter for total nuisance dust and 5 mg/m³ for respirable dust (8 hour sample average). The Environmental Protection Agency (EPA) has established National Ambient Air Quality Standards for particulate matter in outdoor air at limits of 50 micrograms per cubic meter (ug/m³) or 0.05 mg/m³, respirable, as an annual average concentration, and 150 ug/m³ or 0.15 mg/m³, respirable, as a 24-hour ceiling concentration for 24 hours of sampling. For indoor air, some researchers and ASHRAE (American Society of Heating, Refrigeration, and Air Conditioning Engineers) recommend a performance criteria of 75 ug/m³ (0.075 mg/m³) for total dust and 50 ug/m³ (0.05

Table 5
Airborne Concentrations for Total Dust & Silica

<u>Description</u>	<u>Quantity</u> <u>Dust</u>	<u>Total Dust</u> <u>(mg/m³)</u>	<u>Quantity</u> <u>Silica</u>	<u>Silica</u> <u>(mg/m³)</u>
WTC Complex*	188	<0.07 - 7.17	11	<0.02 - 0.06
Tower 1	50	<0.09 - 1.0	5	<0.02 - 0.03
Tower 2	9	<0.09 - <0.2	1	<0.02
Basement Levels	87	<0.07 - 7.17	-	-
Concourse	26	0.09 - 0.1	3	<0.02
Ambient	11	<0.09 - 0.7	2	<0.02 - 0.06
PA Samples	16	<0.052 - 0.723	-	-
Voids	5		0	

* Excludes PA Samples in Total Calculation

mg/m³) for respirable dust. Only 5 samples were voided. Although, all analyzed samples were below the OSHA permissible exposure limits, respiratory protection was provided for all workers within the basement. In addition dust masks were provided to individuals working in the other areas of the WTC complex.

The OSHA PEL for respirable silica has been established at 0.10 mg/m³ and the NIOSH level is recommended at 0.05 mg/m³. A review of the data indicates that all results are below the OSHA PEL and 10 of the 11 samples are below the NIOSH recommended exposure level.

7.7 CONTINUOUS AND PERIODIC MONITORING

7.71 Continuous Monitoring

Continuous monitoring for oxygen, combustible gases, hydrogen sulfide, and carbon monoxide was conducted in the basement area adjacent to the blast site. The data is summarized in table 6.

Table 6
Continuous Monitoring Results

<u>Days</u>	<u>Location</u>	<u>Measure</u>	<u>O, %</u>	<u>Combust. %</u>	<u>H₂S ppm</u>	<u>CO ppm</u>
32	B1 Level, Vista Ramp, Vista Hotel	Mean	21.0	<1	<1	5
		Low	19.5	0	0	0
		High	21.9	10	2.5	49
16	B1 Level, Loading Dock Between Towers 1 and Towers 2	Mean	21.0	0	0	4.9
		Low	20.6	0	0	0
		High	21.8	0	1.0	40
16	B2 Level, Building Services area, Tower 1	Mean	21.0	1.2	<1	4.8
		Low	20.5	0	0	0
		High	22.1	20.0	1.0	28.0
19	B3 Level, Stock Room, Tower 1	Mean	21.1	<1	<1	2
		Low	19.8	0	0	0
		High	24.5	8	4	24
1	West Ramp B, Northbound	Mean	21.2	0	0	2.4
		Low	21.0	0	0	0
		High	21.4	0	0	64.0

The results show that 99.9% of the time, the oxygen levels, the combustible percent, and hydrogen sulfide concentrations remained within acceptable parameters. On March 7, 1993, at the B3 Level stock room oxygen levels reached 24.5%, combustible levels reached 8.0%, hydrogen sulfide levels reached 4.0 ppm and carbon monoxide levels reached 22 ppm. The greatest concern was the oxygen level; however, all concentrations dropped within less than five minutes. The carbon monoxide levels were elevated on occasions. Investigations of the elevated carbon monoxide levels identified an increased number of vehicles being used in the blast

site to facilitate demolition and removal of debris. GRE recommended limiting the simultaneous usage of numerous carbon monoxide emitting equipment.

7.72 Periodic Monitoring

Periodic monitoring was conducted using a Foxboro OVA 128 to detect organic vapors and the Gastech Freon 12 for the detection of freon level. Monitoring was typically conducted twice per shift.

The exposure limit for R-12 and R-22 are 1000 ppm. Freon levels collected from March 2 to April 2 ranged from 50 to 375 ppm. Pressure readings on a tank on B5 showed that little refrigerant remained, although leaks were detected around the valves. The impacted tanks probably released the CFC's during the explosion. In addition, leaks were identified around valves and gauges of refrigerant receivers on B6. The B6 receivers were approximately 65% full.

Organic vapors ranged from 0 to 20 ppm, however there were occasions when the levels temporarily reached 150 ppm. Sewage vents and associated lines were examined and monitored frequently with the OVA and were identified to be the source of these elevated readings. However, on March 29, an OVA reading reached 200 ppm. An investigation in the refrigerant room revealed several streams of water from an unknown sources. A prevalent "gasoline" odor was detected and the water was covered with a sheen. The area was cleaned up and the readings returned to zero within one hour.

In addition, monitoring for oxygen, combustibles, hydrogen sulfide, and carbon monoxide was performed in various locations on a periodic or "as-needed" basis. Several situations are highlighted below which demonstrate the typical response provided by GR Environmental.

On March 12, a policeman announced over the radio that there was a natural gas odor emanating from the basement levels. GRE responded by conducting monitoring throughout the basement for oxygen, carbon monoxide, hydrogen sulfide, combustibles, methane and freon. All results were acceptable and the source of odor which generated the complaint was never identified.

On March 18, a small fire was identified in the lower level of the "blast site." Upon receipt of this announcement, GRE performed monitoring on B2, B5, and B6 to determine if an evacuation of the areas was necessary. Results were in acceptable ranges with only slightly elevated carbon monoxide levels at the J4 stairwell. This elevated concentration dissipated within fifteen minutes.

APPENDIX H-1.4

Data Regarding Fire Station LUST Release &
Impact on WTC

THE PORT AUTHORITY OF NY & NJ

MATERIALS ENGINEERING DIVISION

241 Erie Street, Room 234
Jersey City, NJ 07310

FAX #(201) 216-2949

MATERIALS

TO: Phil Taylor DATE: 10/28/98
COMPANY/FIRM WTC
FAX NUMBER (212) 435-3853

FROM: ARMANDO A. ARCEVAL
TELEPHONE NUMBER: (201) 216-2966

NUMBER OF PAGES: (4) INCLUDING COVER SHEET

COMMENTS: The result showed NO PCB in
oil.

Glad to work Thank,
w/ you - all the time !! Armando

Form I
ORGANICS PCB REPORT

Sample Number: AA74266 (10X)

Matrix: Gauze Pad

Client Id: WTC - SP

Initial Volume: 1 Wipe

Data File: GC2796B

Final Volume: 20ml

Data Analyzed: 28 Oct 1998 11:00

Dilution Factor: 10

Date Received/Extracted: 10/28/98-10/28/98

Percent Solids: 0

Column: J&W-Scientific db-608/1701 30m .32mmID

CAS #	Compound	PQLMDL	Concentration (ug/Wipe)
12674112	Aroclor-1016	10	U
11104292	Aroclor-1221	10	U
11141155	Aroclor-1232	10	U
53469219	Aroclor-1242	10	U
12672296	Aroclor-1248	10	U
11097691	Aroclor-1254	10	U
11096825	Aroclor-1260	10	U

DRAFT

Total Target Concentration 0

- U - Indicates the compound was analyzed but not detected.
J - Indicates an estimated value when a compound is detected at less than the specified detection limit.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the instrument.

CHAIN OF CUSTODY REPORT

PAGE OF

LABORATORY DESTINATION:

[illegible]

HAMPTON-CLARKE INC.

WOMAN BUSINESS ENTERPRISE

ENVIRONMENTAL REMEDIATION

VERITECH LABS**FAX TRANSMITTAL SHEET FOR (973) 244-9787**TO: Dimitris Bourgoias / Derion BaileyCOMPANY NAME: PA NY NJFAX NO: 201 216 2949 / 201 216 2158FROM: TQCW DATE: 10/28/98TOTAL NUMBER OF PAGES FAXED IS 3 INCLUDING COVER SHEET.

Contact Sylvia at (973) 244-9770 if you do not receive the proper number of pages or if you have any questions.

ADDITIONAL MESSAGE

Preliminary - water oil spill

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TABLE 2

ENGINE COMPANY 10/ LADDER COMPANY 10
MANHATTAN BOROUGH, NEW YORK, NEW YORK

Summary of Fluid Levels

TAMS Data

Monitor Well ID	Date Measured	Depth to Water* (ft)	Water Elevation** (ft-NAVD)	Product Thickness (ft)
MW-1	12/13/96	16.63	-2.31	4.69
	1/28/97	-	-	-
	3/27/97	16.63	-2.31	4.23
	4/11/97	15.69	-1.37	3.28
	8/14/97	15.77	-1.45	3.65
	10/10/97	15.57	-1.25	3.64
MW-2	12/13/96	13.06	+1.45	ND
	1/28/97	13.43	+1.08	ND
	3/27/97	13.74	+0.77	ND
	4/11/97	13.61	+0.90	ND

*Measured from top of casing.

**Reference datum is North American Vertical Datum of 1988 (NAVD 88) as used in Geod survey, 1997.

ND = not detected

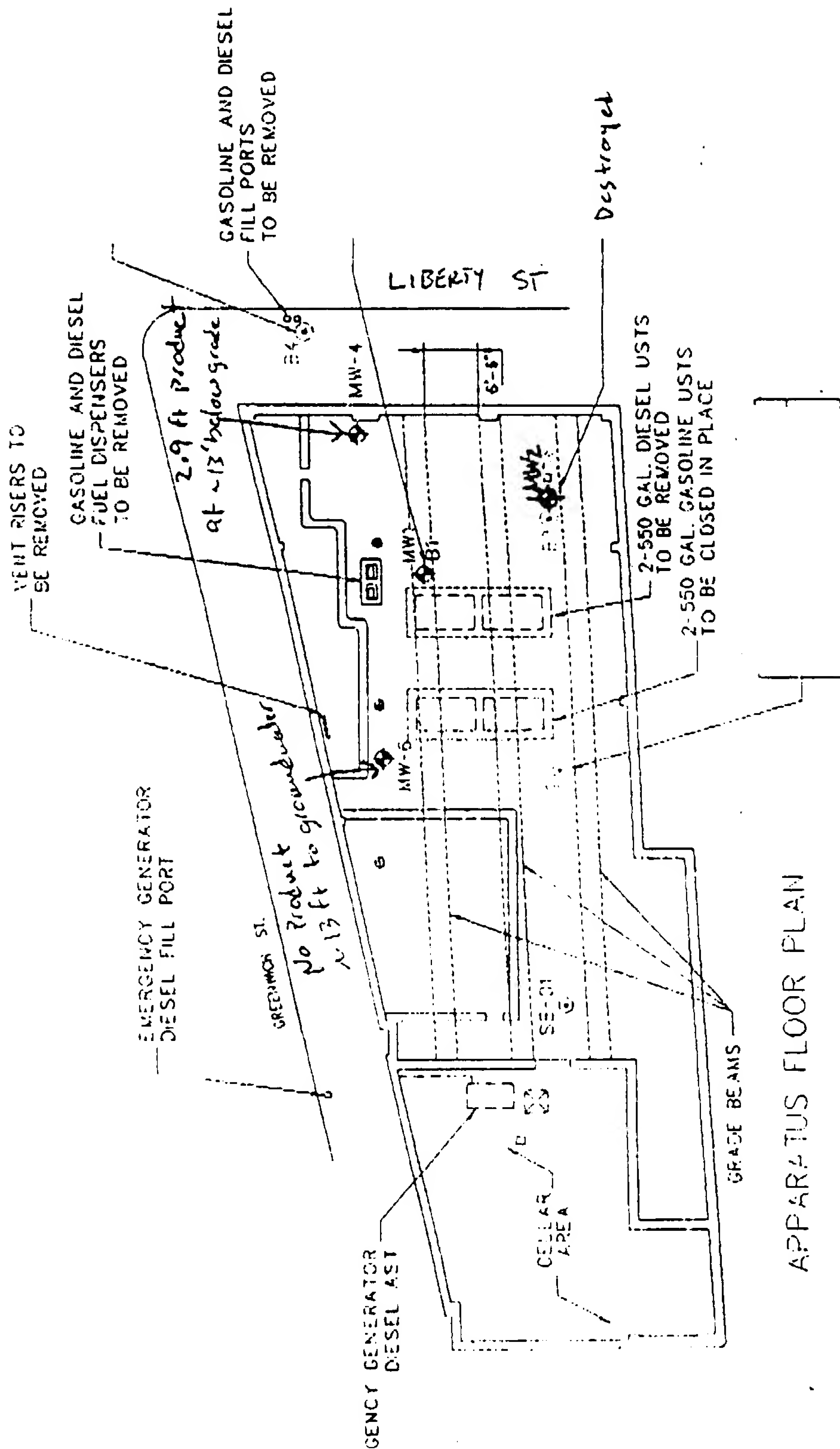
Our Wells 10/16/98

	Depth to Product	Depth to water	Product Δ
MW-4	12.83 Ft	15.68 Ft	2.85 Ft
MW-6	No Product	12.82'	⊙

9 6 TWO TS NE



EC 10

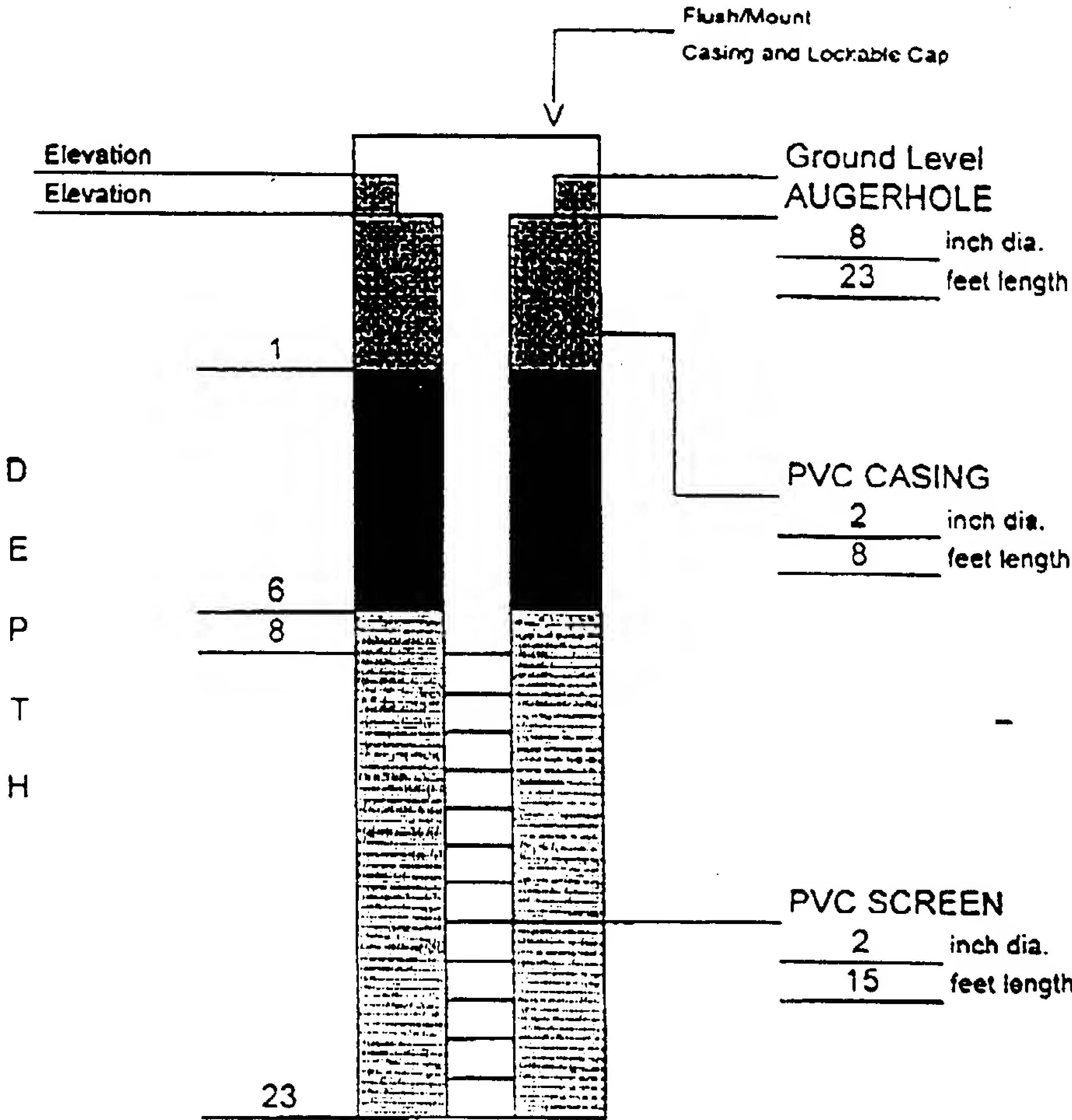


APPARATUS FLOOR PLAN

1" = 20'

DRILLING SUMMARY	
Geologist: B. McCaffrey	
Drilling Company:	
Soil Testing	
Drillers: J. Bacileo	
Rig Make/Model:	
Date: 9/21/98	
GEOLOGIC LOG	
depth(ft.)	lithology
0' - 10'	Fill
10' - 23'	Silty Sand

WELL DESIGN	
--------------------	--

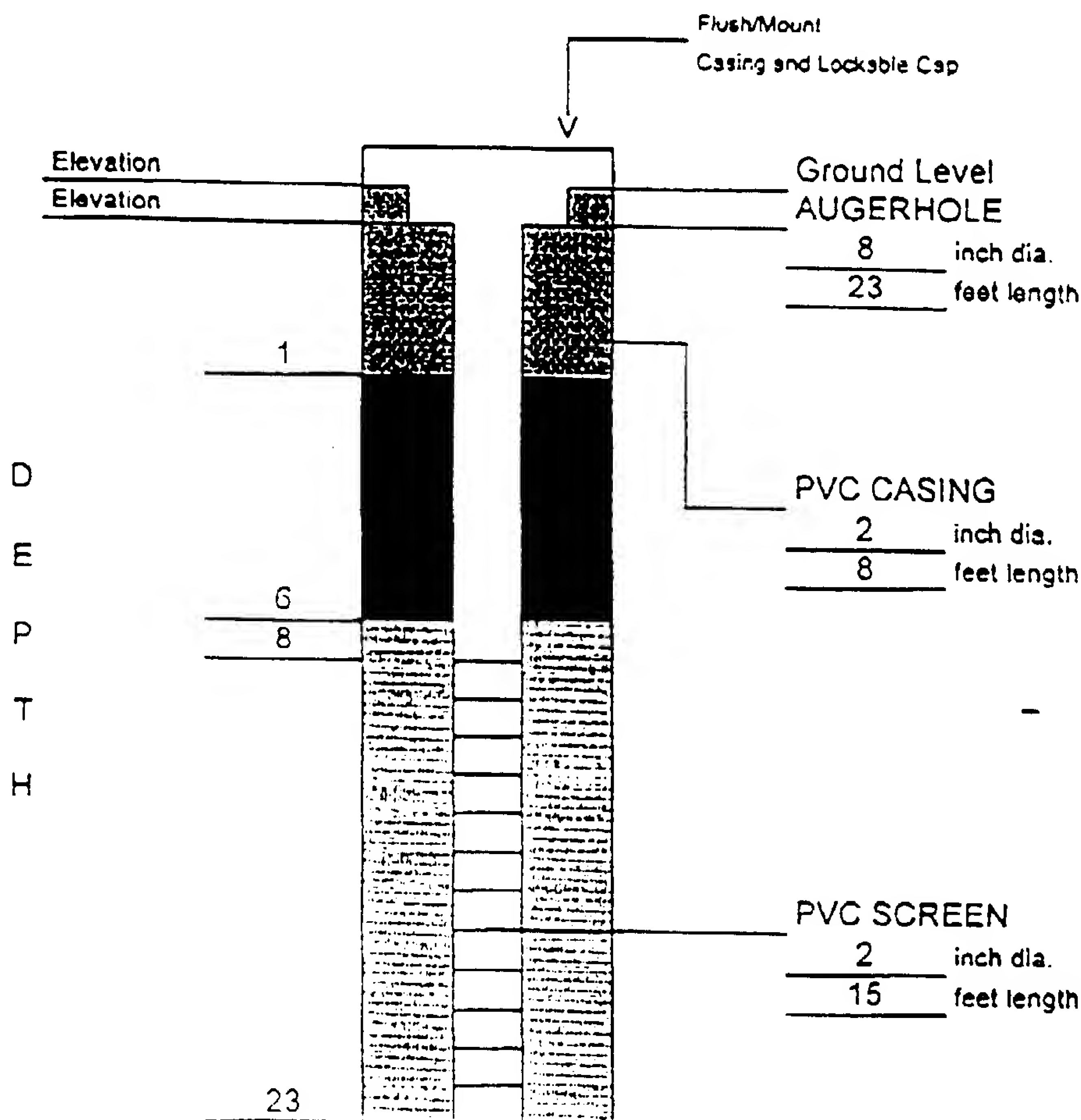


CASING MATERIAL	SCREEN MATERIAL	FILTER MATERIAL
Surface: Sch 40 PVC	Type: Sch 40 PVC	Type: #2 Sand Setting: 6' - 23'
Monitor:	Slot Size: 0.020"	SEAL MATERIAL
		Type: Bentonite Setting: 1' - 6'

COMMENTS: Groundwater @ 11'	LEGEND
	<div><div>Cement/Bentonite Grout</div><div>Bentonite Seal</div><div>Silica Sandpack</div></div>

Client: NYCDDC	Location: EC 10	Project No.: 195-8-200
LiRo-Kassner, Inc. Engineering & Construction Management	MONITORING WELL CONSTRUCTION DETAILS	Well Number: MW-6

WELL SUMMARY		
Geologist: B. McCaffrey		
Drilling Company:		
Soil Testing		
Drillers: J. Bacileo		
Rig Make/Model:		
Date: 9/21/98		
GEOLOGIC LOG		
depth(ft.)	lithology	
0' - 11'	Fill	
11' - 23'	Red Clay	
WELL DESIGN		
CASING MATERIAL	SCREEN MATERIAL	FILTER MATERIAL
Surface: Sch 40 PVC	Type: Sch 40 PVC	Type: #2 Sand Setting: 6' - 23'
Monitor:	Slot Size: 0.020"	SEAL MATERIAL
		Type: Bentonite Setting: 1' - 6'
COMMENTS:		LEGEND
Groundwater @ 13'		<div style="display: flex; align-items: center;"> <div style="width: 20px; height: 10px; background-color: #cccccc; border: 1px solid black; margin-right: 5px;"></div> Cement/Bentonite Grout </div> <div style="display: flex; align-items: center;"> <div style="width: 20px; height: 10px; background-color: #000000; border: 1px solid black; margin-right: 5px;"></div> Bentonite Seal </div> <div style="display: flex; align-items: center;"> <div style="width: 20px; height: 10px; background-color: #ffffff; border: 1px solid black; margin-right: 5px;"></div> Silica Sandpack </div>
Client: NYCDDC	Location: EC 10	Project No.: 195-8-200
LiRo-Kassner, Inc.	MONITORING WELL	Well Number: MW-4
Engineering & Construction Management	CONSTRUCTION DETAILS	



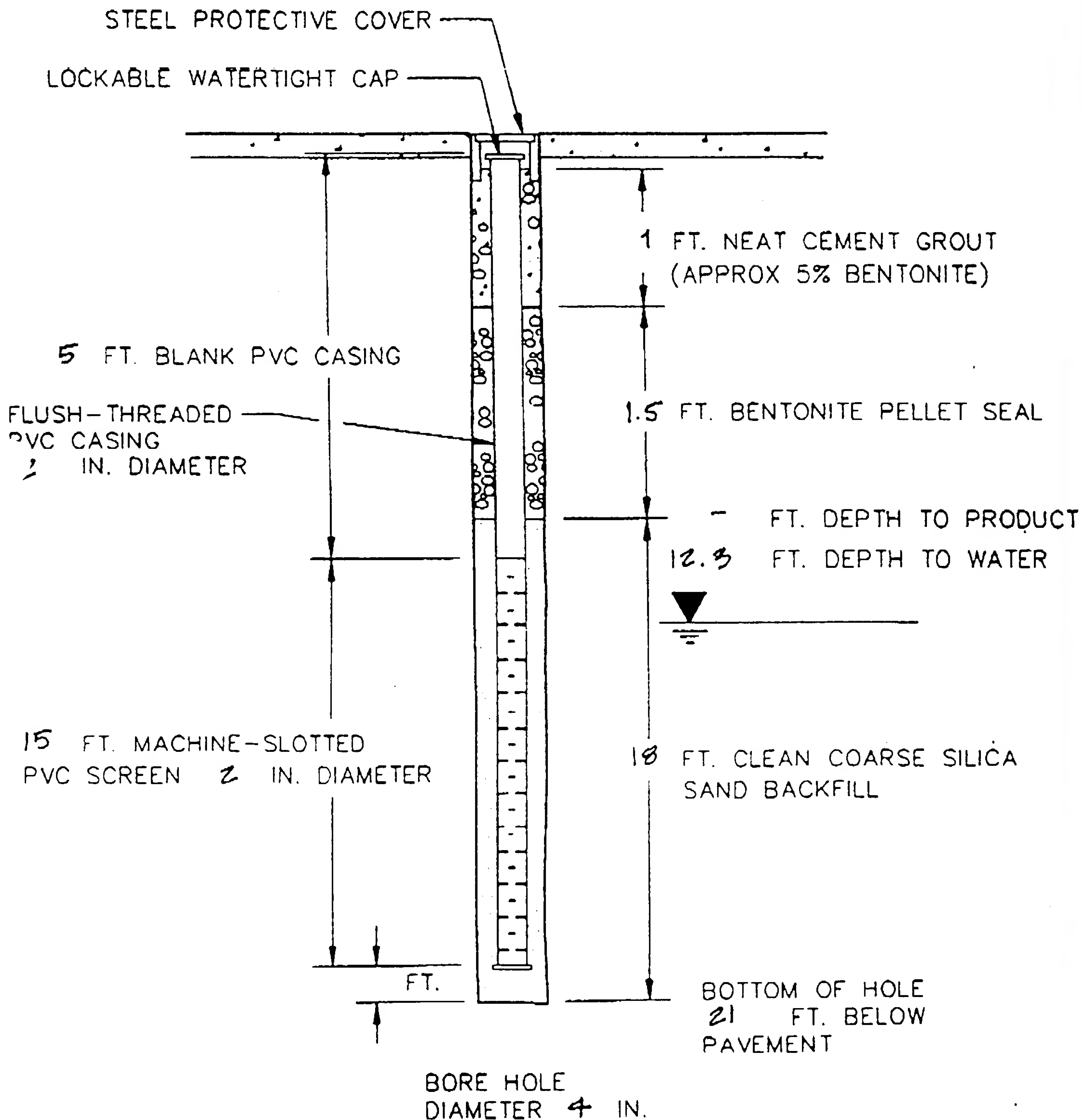
LIRO ENGINEERING AND CONSTRUCTION MANAGEMENT, P.C.										TEST BORING LOG: MW-4	
PROJECT: EC 10, Liberty Street, Manhattan										BORING NO.:	
CLIENT: NYCDDC										SHEET: OF	
BORING CONTRACTOR: Soil Testin Inc.										JOB NO.:	
GROUNDWATER: ~13'										BORING LOCATION:	
DATE TIME LEVEL TYPE TYPE CAS. SAMPLER CORE TUBE										GROUND ELEVATION:	
										DATE STARTED: 9/21/98	
										DATE FINISHED:	
										DRILLER: J. Bacileo	
										GEOLOGIST: B. McCaffrey	
										REVIEWED BY:	
										* POCKET PENETROMETER READING	

DEPTH FEET	STRATA	SAMPLE				DESCRIPTION				REMARKS
		NO.	TYPE	BLOWS PER 6"	RECOVERY ROD %	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	
								Concrete		
					NA	tan	loose	m-c sand, some gravel	SP	
					NA	NA	NA	concrete and boulders		
10		S1	1 1/8 SS	4 50 15 10	10	brown	medium- dense	building rubble (brick, concrete)		dry 100
		S2		5 6 6 8	40	Red Black	medium- dense	Red silty sand black f-m sand	SP	wet >200
		S3		5 5 5 6	50	Red	medium- dense	Red clay	CL	wet
15		S4		5 6 6 5	50	Red	medium dense	Red clay	CL	wet
		S5		6 5 4 6	50	Red	medium- dense	Red clay	CL	wet
20		S6		5 5 4 5	45	Red	medium- dense	Red clay	CL	wet
		S7	✓	5 4 4 6	45	Red	medium- dense	Red clay	CL	wet
25										
30										
35										

COMMENTS: _____

PROJECT NO.: _____ BORING NO.: _____

Subject: <i>NYCDDC-TANKS</i>	Location: <i>ENGINE CO. 10</i>	Page 1 of 2		
Object No.: <i>5797 - DB2</i>	Contractor: <i>SOIL MECHANICS</i>	Water Levels		
Elevation: <i>14.7</i>	Driller: <i>M. STIMPFLE</i>	Date	Time	Depth
Casing Elevation: <i>14.3</i>	Well Permit No.: <i>-</i>	<i>11/14/96</i>	<i>12:50 PM</i>	<i>11'-16"</i>
Item: <i>NAVD 88</i>	Date of Construction: <i>11/14/97</i>			



Not to Scale

PROJECT: NYC DDC-TRANSPORTATION

CONTRACTOR: HOIL MECHANICAL DRILLING CORP.

PAGE 1 OF 2

ECT NO.: 5191-082

LOCATION: ENGINE CO. 10 / LADDER CO. 10

DATE: 11 / 11 / 96

SURFACE ELEVATION: 14.7

NAVD 88

DATUM: N.G.V.D.

DRILLER: M. STIMPFLE

TAMS REP.: J. MARTIN

WATER LEVELS

DRILLING AND SAMPLING

EQUIP. SIMPCO

DATE	TIME	DEPTH	CASING		CASING	SAMPLER	CORE	TUBE
11/11/96	1:30 PM	8'-3"		TYPE	Auger	S.S.		
				I.D.		2 1/4" IN		
				WT./Fall		140#/30" IN		

Depth (ft)	Sample Number	Blows per/6"	Recovery (Inches)	SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES				
-1				CONCRETE				
-2								
-3								
-4								
-5	S1	2	Rec=2" IN	4'-0"				
-6		3		FILL (lt. br cf S, t. \$)				
-7		3						
-8	S2	2	Rec=4" IN	FILL (dk br. cf S, s \$, w. brk fgmts				
-9		3						
-10		4		FILL (dark brown coarse to fine SAND				
-11	S3	19	Rec=3" IN	Some silt, some coarse to fine gravel)				
-12		26						
-13		2		FILL (dk br. cf S, s. cf Gr, t, \$)				
-14		2						
-15	S4	1	Rec=1" IN	FILL (dk br cfs, s cf Gr, t \$)				
-16		3						
-17		3						
-18		3						
-19								
-20								
-21								
-22								
-23								
-24								
-25								
-26								
-27								
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-88								
-89								
-90								
-91								
-92								
-93								
-94								
-95								
-96								
-97								
-98								
-99								
-100								

HNU = 7 ppm
Headspace = 0 ppmHNU = 4 ppm
Headspace = 15 ppmENVIR. SAMPLE
HNU = 50 ppm
Headspace = 40 ppmENVIR. SAMPLE
HNU = 30 ppm
Headspace = 30 ppmRed brown to brown f...
SILT and Clay

br. \$, a C.

ENVIR. SAMPLE
HNU = 15 ppm
sample wet
Headspace = 20 ppm

NYC DDC - UPGRADE, REPLACEMENT OR DECOMMISSIONING OF PETROLEUM PRODUCT STORAGE TANK #RW348.

PROJECT NO.: 5191.

ENGINE Co. 10 / LADDER Co. 10

PAGE 2 OF 2

Depth (ft)	Sample Number	Blows per/6"	Recovery (Inches)	SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES	
-20	S6	10	Rec = 15"	Rd br \$, a.C	Sample wet HNU = 2 ppm Headspace = 6 ppm
-21		12			
-22		13			
-23	S7	14	Rec = 15"	Rd br \$, a.C	Sample wet HNU = 3 ppm Headspace = 5 ppm
-24		10			
-25		12			
-26		14		END of boring @ 24'-6"	
-27		16			
-28					
-29					
-30					
-31					
-32					
-33					
-34					
-35					
-36					
-37					
-38					
-39					
-40					

PROJECT: NYCDDC-TRANSPORTATION				CONTRACTOR: SOIL MECHANICS DRILLING CORP.				PAGE 1 OF 2	
OBJECT NO.: 5797-082				LOCATION: ENGINE CO. 10 / LADDER Co. 10				DATE: 11/12/96	
SURFACE ELEVATION: 14.8				NAV D 88 DATUM: N.G.V.D. DRILLER: M. STIMPFLE				TAMS REP.: J. Martinkat	
WATER LEVELS				DRILLING AND SAMPLING				EQUIP: SIMPCO	
DATE	TIME	DEPTH	CASING		CASING	SAMPLER	CORE	TUBE	
11/12/96	12 45 PM	8'-3"		TYPE	Auger	S.S			
				I.D.		2 1/4" IN			
				WT./Fall		140#/30'			
Depth (ft)	Sample Number	Blows per/6"	Recovery (Inches)	SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES					
-1				CONCRETE 0'-9"					
-2	S1		Rec=5"	FILL (dk br cfS, t. \$ w. bls is a. & cool)					
-3									
-4	S2			FILL (dk br cfS, t. \$)					
-5									
-6	S3		Rec=5"	FILL (dk br cfS, s. \$, w. brk frags)					
-7									
-8	S4		Rec=4"	FILL (dk br cfS, t. \$)					
-9									
-10				FILL (dark brown coarse to fine SAND, little silt, with boulders and brick frags.)					
-11	S5		Rec=6"	FILL (Rd br cfS, a. cf Gr, s. \$)					
-12				12'-0"					
-13									
-14				Red brown to brown SILT and clay					
-15									
-16	S6		Rec=12"	Rd br to br. G. \$,					
-17									
-18									
-19									
-20									

HNU = 0 ppm
Headspace = 2 ppm

POOR RECOVERY

HNU = 0 ppm
Headspace = 0 ppm

ENVIRON. SAMPLE
HNU = 0 ppm
Sample moist
Headspace = 0 ppm

HNU = 10 ppm
Headspace = 15 ppm
Sample wet

ENVIR. SAMPLE
HNU = 0 ppm
Headspace = 0 ppm
Sample wet

NYC DDC - UPGRADE, REPLACEMENT OR DECOMMISSIONING OF PETROLEUM PRODUCT STORAGE TANK #PW398.

PROJECT NO.: 5197-082 ENGINE Co. 10 / LADDER Co. 10

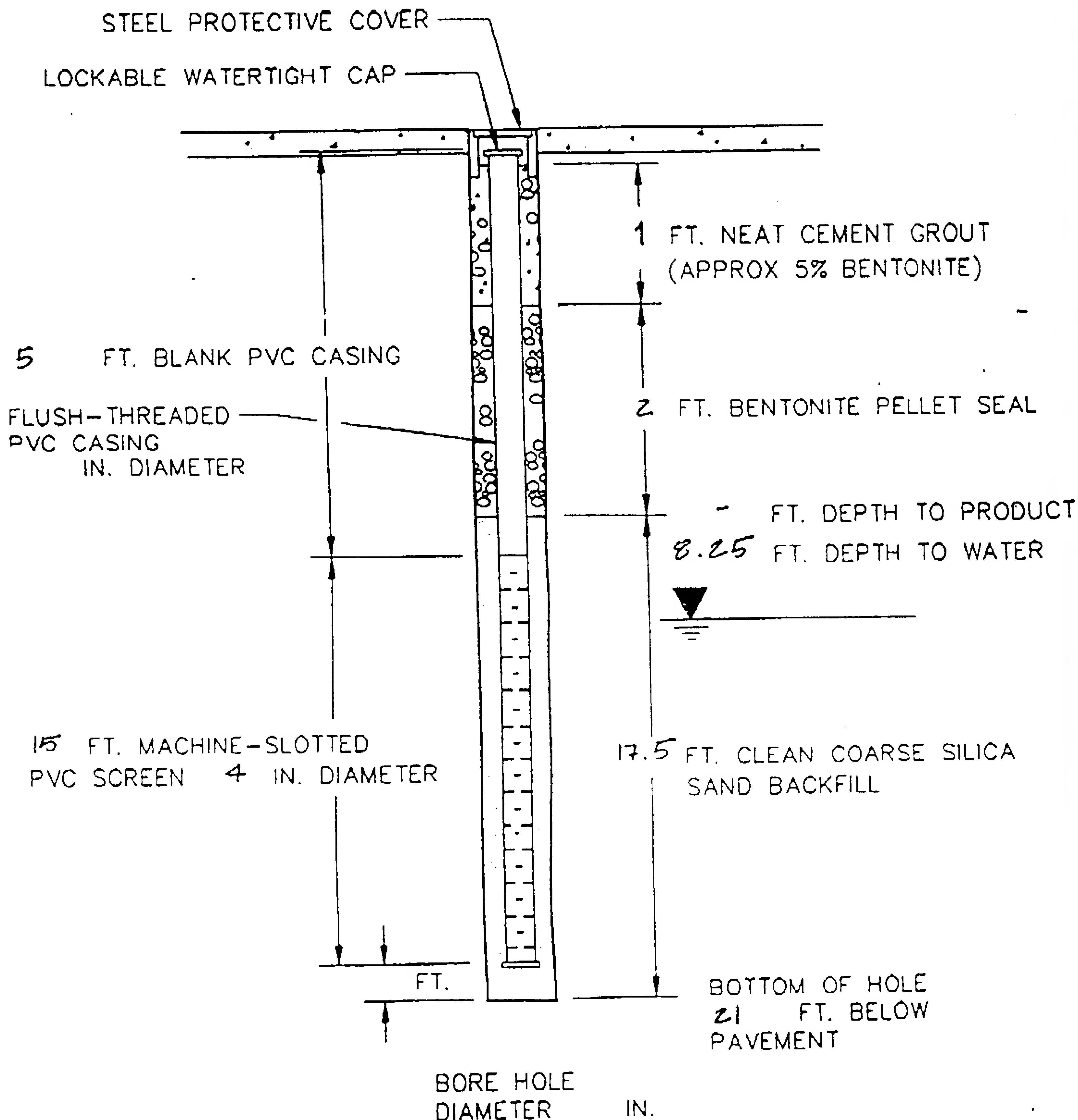
PAGE 2 OF 2

Depth (ft)	Sample Number	Blows per 6"	Recovery (Inches)	SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES	
-20					
-21	S7		Rec=16"	Rd br. \$, a.C	HNU = 0 ppm *
-22					
-23	S8		Rec=16"	Rd br. \$, a.C	HNU = 0 ppm *
-24					
-25				END OF BORING @ 24'-0"	* - HNU NOT FUNCTIONING PROPERLY,
-26					
-27					
-28					
-29					
-30					
-31					
-32					
-33					
-34					
-35					
-36					
-37					
-38					
-39					
-40					

JECT: NYCDDC-TRANSPORTATION				CONTRACTOR: SOIL MECHANICS DRILLING CORP.			PAGE 1 OF 2	
PROJECT NO.: 5191-082				LOCATION: ENGINE CO. 10 / LADDER CO. 10			DATE: 11 / 13 / 96	
SURFACE ELEVATION: 14.6				DATUM: N.G.V.D.			DRILLER: M. STIMPLE	
TAMS REP: J. Martinbat				EQUIP: SIMCO				
WATER LEVELS				DRILLING AND SAMPLING				
DATE	TIME	DEPTH	CASING		CASING	SAMPLER	CORE	TUBE
11/13		No WATER		TYPE	Auger	S.S		
				I.D.		2 1/2 IN		
				WT./Fall		140#/30m		
Depth (ft)	Sample Number	Blows per/6"	Recovery (Inches)	SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES				
-1	S1		Rec=3'IN	CONCRETE 0'-8"				
-2		Fill (dk br. cf S, s.f Gr, L & w. brk fnts)						
-3								
-4		CONCRETE 3'-6"						
-5				END OF BORING @ 3'-6"				
-6								
-7								
-8								
-9								
-10								
-11								
-12								
-13								
-14								
-15								
-16								
-17								
-18								
-19								
-20								

HN=0ppm
Headspace=
ENVIR. SAMPLE
NOT ENOUGH
SOIL FOR
HEADSPACE

Project: <u>NYCDDC - TANKS</u>	Location: <u>ENGINE CO. 10</u>	Page 2 of 2		
Project No.: <u>5797-082</u>	Contractor: <u>SOIL MECHANICS</u>	Water Levels		
Elevation: <u>14.7</u>	Driller: <u>M. STIMPLE</u>	Date	Time	Depth
Casing Elevation: <u>14.5</u>	Well Permit No.: <u>-</u>	<u>11/14/96</u>	<u>1000</u>	<u>13'-4"</u>
Job: <u>NAVD 88</u>	Date of Construction: <u>11/13/96</u>			



Not to Scale

PROJECT: NYC DDC - TRANSPORTATION				CONTRACTOR: SOIL MECHANICS DRILLING CORP.				PAGE 1 OF	
PROJECT NO.: 6191-082				LOCATION: ENGINE CO. 10 / LADDER CO. 10				DATE: 11/13/96	
SURFACE ELEVATION: 14.7				DATUM: N.G.V.D.				DRILLER: M. STIMPFLE	
TAMS REP.: J. Martinkat									
WATER LEVELS				DRILLING AND SAMPLING EQUIP. SIMPCO					
DATE	TIME	DEPTH	CASING		CASING	SAMPLER	CORE	TUBE	
11/13/96	12:30 PM	11'		TYPE	Auger	SS			
				I.D.		2 1/2" IN			
				WT./Fall		140# / 30" IN			
Depth (ft)	Sample Number	Blows per 6"	Recovery (Inches)	SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES					
-1				CONCRETE 0'-10"					
-2	S1	1 3	Rec=2" IN	FILL (br cfS, t.\$)					
-3		3 2							
-4	S2	2 2	Rec=5" IN	FILL (H. br cfS w brk fgnts)					
-5		2 2							
-6	S3	5 5	Rec=6" IN	FILL (dk br cfS, t.\$, w. brk fgnts & bldrs)					
-7		5 6		FILL (brown coarse to fine SAND, trace silt with brk)					
-8	S4	5 6	Rec=6" IN	FILL (br cfS, s.\$ w. brk fgnts and bldrs)					
-9		5 4		9'-0"					
-10	S5	29 16	Rec=15" IN	br fS, a.G.\$					
-11		15 13							
-12	S6	12 13	Rec=15" IN	dito					
-13		12 15							
-14				BROWN FINE SALT and clay					
-15									
-16	S7	6 13	Rec=12" IN	br '\$, a.C.					
-17		14 14							
-18									
-19									
-20									

HNU = 0 ppm
Headspace = 3 ppm

HNU = 0 ppm
Headspace = 2 ppm

HNU = 200+ ppm
Headspace = 120 ppm
ENVIR. SAMPLE

HNU = 40 ppm
Headspace = 30 ppm

HNU = 2 ppm
Headspace = 2 ppm

ENVIR. SAMPLE
HNU = 15 ppm
Headspace = 2 ppm
sample moist

Sample wet
HNU = 100 ppm
Headspace = 0 ppm

NYC DDC - UPGRADE, REPLACEMENT OR DECOMMISSIONING OF PETROLEUM PRODUCT STORAGE TANK #RW398-12

PROJECT NO.: 5191-082 ENGINE CO. 10 / LADDER CO. 10

PAGE 2 OF 2

Depth (ft)	Sample Number	Blows per/6"	Recovery (Inches)	SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES	
-20	SB	7	Rec=16"	br \$, a.C	H ₂ O = 2ppm Headspace = 0ppm Sample wet.
-21		12			
-22		15			
-23				END OF BORING @ 22'-0"	
-24					
-25					
-26					
-27					
-28					
-29					
-30					
-31					
-32					
-33					
-34					
-35					
-36					
-37					
-38					
-39					

PROJECT: NYC DDC-TRANSPORTATION

CONTRACTOR: SOIL MECHANICS DRILLING CORP.

PAGE 1 OF 1

JECT NO.: 5197-082

LOCATION: ENGINE CO. 10 / LADDER C. 10

DATE: 11 / 14 / 96

SURFACE ELEVATION: 13.7

NAVD 88
DATUM: N.G.V.D.

DRILLER: M. STIMPFLER

TAMS REP.: J. Martinko

WATER LEVELS

DRILLING AND SAMPLING

EQUIP: hand auger

DATE	TIME	DEPTH	CASING		CASING	SAMPLER	CORE	TUBE
				TYPE				
				I.D.				
				WT./Fall				

Depth (ft)	Sample Number	Blows per/6"	Recovery (Inches)	SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES				
-1				CONCRETE	0'-6"			
-2				FILL (lt. br cfs, l. mfGr, t. \$)				Hand Op.
-3								
-4								
-5								
-6								
-7								
-8								
-9								
-10								
-11								
-12								
-13								
-14								
-15								
-16								
-17								
-18								
-19								
-20								

END OF BORING
@ 2'-6"

THE PORT AUTHORITY OF NY & NJ

Materials Engineering Division
Engineering Department
241 Erie Street, Room 234
Jersey City, New Jersey 07310-1303
Fax No.: (201) 216-2949

FAX TRANSMISSION

TO: Phil Taylor, CHMM
COMPANY: WTC
FAX NO: (212) 435-3853

FROM: Armando A. Arcenal
DATE: November 9, 1998
DIRECT PHONE No: (201) 216-2966

MESSAGE:

1. The liquid sample I took on 10/27/98 from the B-1 Loading dock was identified as diesel fuel. Please see attached letter from META Environmental, Inc. to Veritech dated November 4, 1998.
2. Preliminary report regarding the samples taken from a monitor well (identified as Engine Co. 10 MW-1 and Lab sample ID# AA74572) and from L-Ramp WTC spill pads (Lab sample ID# AA74571) revealed "both samples resemble each other" as reported in the Veritech Organics Login Report dated 11/2/98. The Laboratory is also going to "fingerprint" the organic samples.

I will forward the results as soon as I received it from the laboratory.

Number of Pages (Including Cover): 6



49 Clarendon Street
Watertown, MA 02172
TEL: (617) 923-4662
FAX: (617) 923-6610

November 4, 1998

Mr. Thomas Katy
Veritech
175 Route 46 West
Fairfield, NJ 07004

RE: Hydrocarbon Fingerprint, Port Authority of NY & NJ

Dear Mr. Katy:

META Environmental, Inc. (META) has completed the analysis of one chemical extract (AA74266) for hydrocarbon fingerprint. An extract of an oily absorbent material in methylene chloride was received and analyzed by gas chromatography with mass spectrometric detection (GC/MS) operated in the total ion monitoring mode. The chromatograms of the extract are included in this report.

The chromatograms indicate the following:

1. The sample is a weathered diesel fuel as indicated by the unresolved complex mixture (UCM) eluting from about 8 minutes (C9, nonane) to about 25 minutes (C24, tetracosane) and the pattern of isoprenoid hydrocarbons,
2. Moderate weathering is indicated by the absence of normal alkanes and the presence of isoprenoid hydrocarbons, pristane and phytane (see Ion 85 and 57 profiles); also, the pattern of alkylated cyclohexanes indicates a weathered diesel (see Ion 83 and 55 profiles),
3. No other substances appear to be present in the sample, and
4. The C17/pristane and C18/phytane ratios are 0 because no C17 or C18 were observed in the sample, suggesting that the diesel oil is potentially more than 15 years old. However, determining the age of fuel oils based on alkane patterns and isoprenoid hydrocarbon ratios is uncertain, particularly when there are substantial amounts of pure organic liquid present.

If you have any questions regarding this data, please call me.

Sincerely,

A handwritten signature in dark ink, appearing to read "David M. Mauro".

David M. Mauro
V. President

RUSH

11/2/98

Veritech Organics Login Report

Client ID: PA-NYNY	FAX Copy Due Date: 11/3/98
Project: WTC Spill	Final Package Due: 11/19/98
Veritech Project#: 11021743	Deliverables: NYDOH-S
Lab #	Matrix
Client Description	

TPH-Fingerprint GC-FID *

AA74571	L-Ramp WTC Spill Pads	Pads
Date Collected	11/2/98 LK 16	
AA74572	Engine Co.10 MVV-1	Oil
Date Collected	11/2/98 15	

Both samples resemble
each other.

* Check to see if chromatography between pads & oil is
the same

***** EXTERNAL STANDARD TABLE *****

***** 11-03-1998 13:39:09 Version 5.1 *****

Data File: K:LK15

Sample Name: AA74572,S,TPHFP

Date: 11-03-1998 12:31:21 Method: R:MTPHFP 11-03-1998 13:38:16 # 1020*

Interface: 2 Cycle#: 15 Operator MCS Channel#: 0 Vial#: N.A.*

Starting Peak Width: 4 Threshold: 10 Area Threshold: 500*

Starting Delay: 0.00 Ending retention time: 14.00

Area reject: 1000 One sample per 0.102 sec.

Amount injected: 1.00 Dilution factor: 1.00

Sample Weight: 1.00000

PK	RET	PEAK	CONCENTRATION IN	NORMALIZED	AREA	HEIGHT	HEIGHT BL	RPF	DELTA	CONC/AREA
NO	TIME	NAME	PPM	CONC	AREA	HEIGHT	HEIGHT BL	PEAK	RET TIME	CONC/AREA
1	2.504	CE	2.6277	100.00000%	11115	12076	2.8 2	0	2.504	4.7294E-05

TOTAL AMOUNT = 1.6277

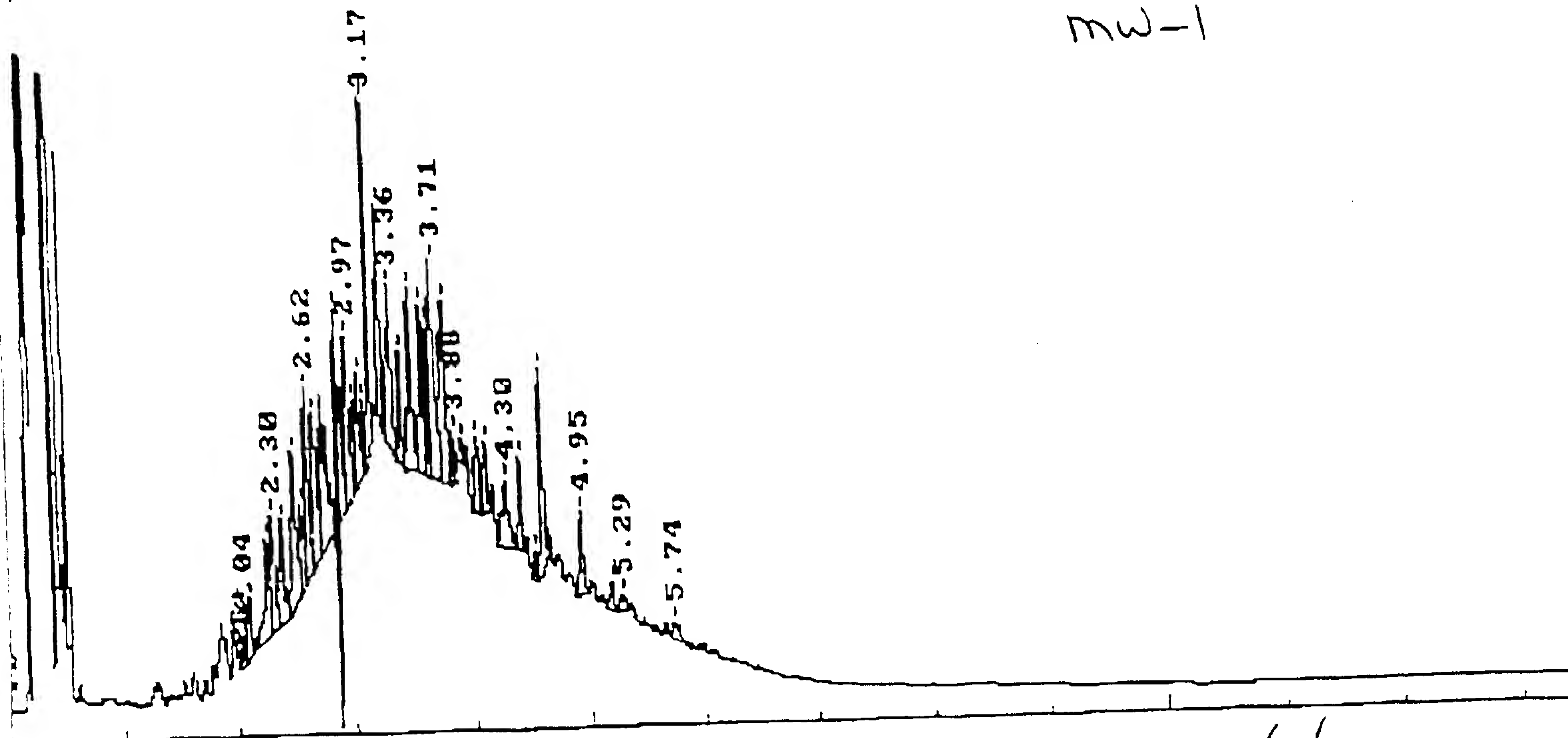
GROUP NUMBER	GROUP AMOUNT	GROUP PERCENT
1	1.6277	100.000000%

Areas, times, and heights stored in: K:LK15.ATB

Data File = K:LK15.PTS Printed on 11-03-1998 at 13:39:10

Start time: 0.00 min. Stop time: 14.00 min. Offset: 0 mv.

Full Range: 600 millivolts



CSD 11/03/98

***** EXTERNAL STANDARD TABLE *****

***** 11-03-1998 14:12:56 Version 5.1 *****
 Sample Name: AA74571,S,TPHFP Data File: K:LK16
 Date: 11-03-1998 13:42:44 Method: R:MTPHFP 11-03-1998 14:12:46 # 1021
 Interface: 2 Cycle#: 16 Operator MCS Channel#: 0 Vial#: N.A.
 Starting Peak Width: 4 Threshold: 10 Area Threshold: 500

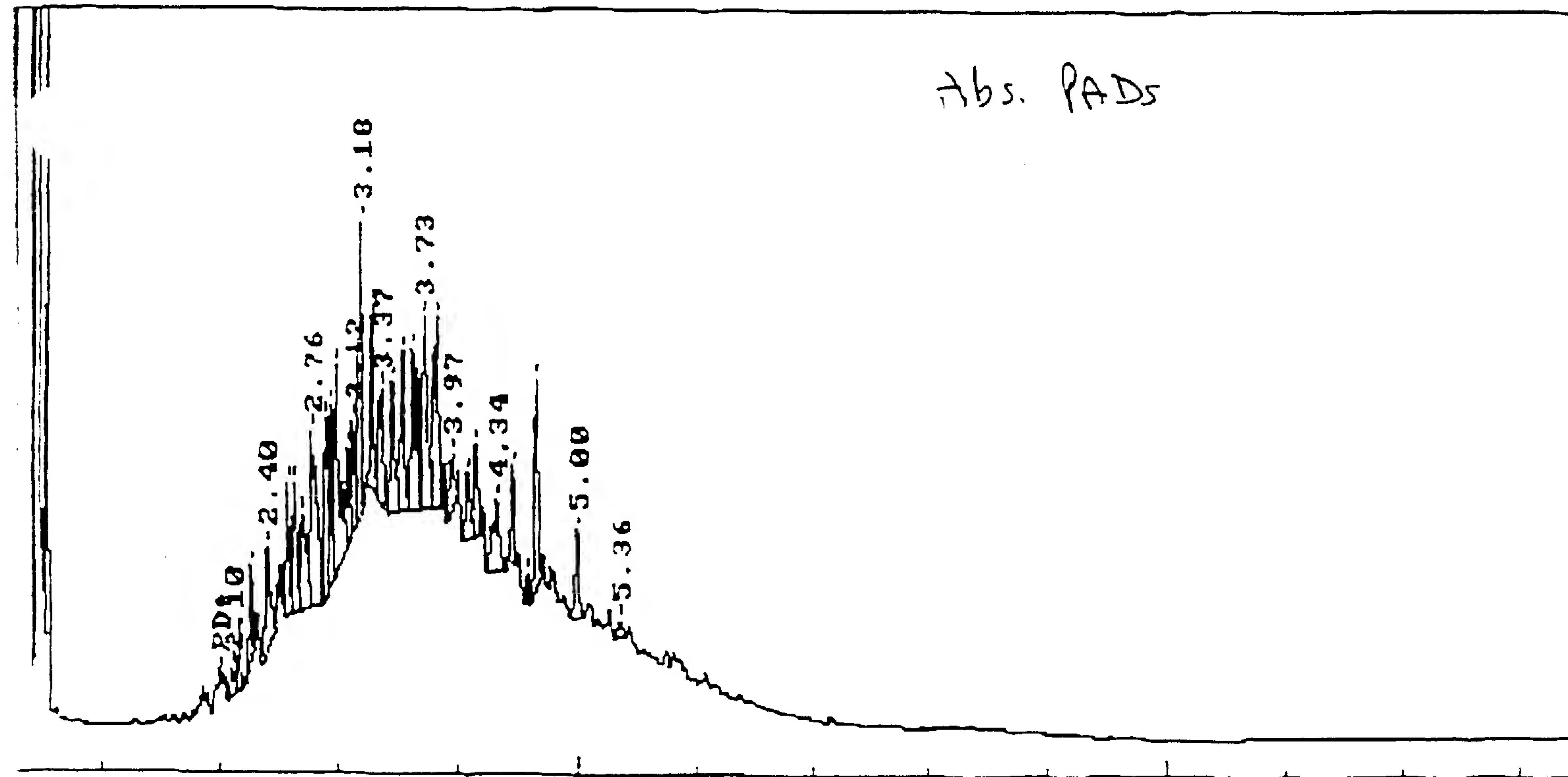
 Starting Delay: 0.00 Ending retention time: 14.00
 Area reject: 1000 One sample per 0.102 sec.
 Amount injected: 1.00 Dilution factor: 1.00
 Sample Weight: 1.00000

PK	RET	PEAK	CONCENTRATION in	NORMALIZED	AREA	HEIGHT	HEIGHT BL	REF	% DELTA
TIME		NAME	PPM	CONC	AREA	HEIGHT	HEIGHT BL	PEAK	RET TIME CONC/AREA

TOTAL AMOUNT 0.0000

GROUP NUMBER	GROUP AMOUNT	GROUP PERCENT
--------------	--------------	---------------

Peaks, times, and heights stored in: K:LK16.ATB
 Data File = K:LK16.PTS Printed on 11-03-1998 at 14:12:57
 Start time: 0.00 min. Stop time: 14.00 min. Offset: 0 mv.
 Full Range: 400 millivolts



11/03/98

FINAL NOTES:

- ① LEAK HAS STOPPED, NO FURTHER EVIDENCE
- ② SPOKE WITH LIPO CONSULTANT, INFORMED HIM AS TO SITUATION. HE WILL EXPAND SCOPE OF NYFD CLEANUP
- ③ SAMPLES COLLECTED SHOWED A MATCH BETWEEN WHAT WAS FOUND IN THE NYFD, AND WHAT WAS LEAKING.

END.

AF.

UNDER FUEL
LEAK

IN OSH
1999

To: Duty73 Staff,Duty74 Staff,Dutys4 Staff
From: Phil Taylor@WTD.PANYNJ
Originated by: Phil Taylor@WTD.PANYNJ
Cc:
Bcc:
Subject: fwd: re: SUMMARY OF HAZAMT RESPONSE TO FUEL LEAK
Attachment:
Date: 11/3/98 2:28 PM

Sorry, I did not copy you on the Emails. Will do so in future.

PT.

Original text

From: Phil Taylor@WTD.PANYNJ, on 11/2/98 12:43 PM:
To: Alan Reiss, Theodore Stam, Louis Menno
Cc: John Castaldo, Kent Piatt, Hermon Banks, Anthony Marciano, Lee Zucchi,
Ed Strauss, Michael Hurley, Ken Grouzalis, Peter Negrón

Monday, November 2nd: Update Continued

As of this morning, the leak has lessened, but spread slightly.

On Friday, 10/30, Pete Negrón and Frank DiMartini met with Mr. Steven Askwith, Project Engineer from LIRO. We escorted Mr. Askwith down to the L Ramp, briefed him on the status of the incident, provided him with site photographs and a drawing prepared by Frank DiMartini, and toured the Concourse Level and Liberty Street so that he could see the correlation between the L Ramp, 4 WTC, and the Engine 10 / Ladder 10 Fire House.

Mr. Askwith provided us with a Boring and Well Location plan for the Fire House. According to the drawing, four, 250 gallon tanks (two diesel, two gasoline) requires remediation; removal or abandonment-in-place. Monitoring wells were sunk; of the four wells, product (diesel fuel) was found on top the water in two of the wells - wells MW 1 and MW 4. As of 10/10/97, 3.64 feet of diesel fuel was found on top of the water in MW 1, and as of 10/16/98, 2.85 feet of diesel fuel was found on top of the water in MW 4. This confirms that there was a leak in either one, or both of the diesel fuel USTs. It has also been confirmed that the level of product in MW 1 has continued to drop; on 12/13/96 it was 4.69 feet of diesel fuel on top of the water, as of 10/10/97, it dropped to 3.64 feet. These wells are located along the east wall of the Fire House, which is immediately adjacent to the north bound IRT 1 and 9 train which runs into the WTC; a possible conduit of transmission.?

Arrangements have been made with the PA Materials Division to collect samples of the fuel dripping into the building in an attempt to fingerprint the grade of diesel fuel; apparently the sample collected on 10/27 was insufficient. Sampling will be performed this morning, 11/2/98. We also have authorization to collect samples directly from the monitoring

well in the Fire House for product ID. While the samples are being analyzed, in order to eliminate the possibility of on-site leakage, I shall explore how we can inspect and test (existing PA call-in contract or through s/Correa) our sub-terranean ASTs. I shall also obtain the testing results for the Bankers Trust AST from Terry Kobel's group.

As a follow-up to our Thursday, 10/29 meeting, I spoke with Transit Inspector William Burgos. His continued investigation as to the presence of diesel fuel within the north bound IRT 1 and 9 tracks disclosed that the tracks, storage closets, electric closets, and manholes are dry; there is no fuel odor present. Inspector Burgos indicated that the tracks are twenty-seven (27) feet beneath street level. He also indicated that on Monday, 10/26, the hydrant located on the corner of Liberty and Greenwich Streets needed to be removed due to a major surface and sub-surface water leak. The leak in the WTC L Ramp started on 10/27; one day later, a possible connection.?

What do we know, and what can we hypothesize?:

- 1) There is confirmed diesel fuel on the water table beneath the Fire House.
- 2) The two leaking tanks and positive monitoring wells are located along the east wall of the Fire House.
- 3) The north bound 1 & 9 tracks run along the east wall of the Fire House.
- 4) A leaking fire hydrant (on the east side of the Fire House) was replaced on 10/26; our leak started on 10/27.
- 5) A possible conduit for the migration of the oil lens and water is along the 1 & 9 tunnel.
- 6) Samples of diesel fuel were collected from the L Ramp and Fire House.
- 7) If they match, we know the source.

We are getting closer to having to turn this matter over to the Engineering Department for site investigation. If the samples match the Fire House product, the process can get complicated;

- 1) Site investigations may entail street and sidewalk closure with penetrations for the boring of monitoring wells,
- 2) Depending upon findings (liquid product vs vapor) the site remediation can be a significant undertaking,
- 3) This matter now becomes a legal question as to the jurisdiction, scope, and liability of the PA, NYS DEC, NYC DEP, & NYC FD.

Optimistically, I recommend the following:

- 1) Lets wait until we get the sampling results back
- 2) We keep on monitoring the leak
- 3) If the leak stops, we may be able to contribute it to the leaking hydrant.
- 4) We deal more closely with NYC FD as to their overall remediation plans.
- 5) If the leak persists, we construct a diversion system so that the L Ramp can be opened. With the leak properly contained we get the Engineering

Department involved.

Please let me know your opinions, I'm open to suggestions.

From: Phil Taylor@WTD.PANYNJ, on 10/29/98 3:30 PM:
October 29th: Update Continued

Met on site with NYCTA Plumbing Inspector William Burgas. According to Inspector Burgas, the only work going on on the 1 and 9 tracks is rail replacement. There are no signs (odor, ponding) of diesel fuel on the tracks, or sump system.

Frank DiMartini from LERA accompanied us on this survey in order to identify for Inspector Burgas on a drawing (prepared by LERA) the location of the leak on the L Ramp, and its relation to the 1 and 9 train, Fire House, and Liberty Street.

Inspector Burgas indicated that he plans on returning on Friday, 10/30, to perform a more extensive walk-thru of the tracks. He will notify us of his findings. Inspector Burgas indicated that the east wall of the north bound 1 and 9 train is in very close proximity to the Fire House and the location of their USTs.

Will keep you posted.

From: Phil Taylor@WTD.PANYNJ, on 10/29/98 12:01 PM:
October 29th: Update

- 1) Dripping still active and spreading slightly
- 2) Two, 55 gallon drums of spent spill pads collected to date. I will be placing orders for additional pads. Record of purchases and waste generation shall be maintained.
- 3) Contact made with Mr. Steven Askwith, (268-2856) Project Engineer, LIRO Engineering for Fire Department work. He will be contacting their environmental unit for on-site assessment. Meeting will most likely be Monday, 11/2. At that meeting, I will have reps from the PA Environmental Engineering Environmental Remediation Section present. Lt. Atlas (570-4210) from Engine 10 / Ladder 10 shall also be invited.
- 4) Made contact with NYCTA; Mr. John McMann (424-5322), Station Manager, and Transit Inspector Burgas (424-4344). Awaiting call backs to arrange inspection of tracks.

5) Will have sample of diesel fuel initially collected for PCB analysis "fingerprinted" to determine grade. This may be necessary for spill operator identification.

6) Hazmat porters George Walsh and Rudy Recci shall inspect site daily throughout the day. Pads shall be changed as required.

7) Area still need to be off limits to all personnel except WT Ops, S4s, Environmental (PT, PN, George, Rudy, and escorted individuals, PA Police, and FDNY)

Will continue to update.

PT

From: Phil Taylor@WTD.PANYNJ, on 10/28/98 7:43 AM:

The following is a summary of an on-going hazardous materials response. The time lines are approximate.

Tuesday, 10/27, 12:15pm:

This office was made aware of a hazardous materials incident; an oil-like substance dripping from the ceiling at the base of the L Ramp.

10/27, 12:30pm:

On site was Ed Strauss, Ken Grouzalis, John O'Donnell, WT Operations; John Meyers and John Russo, WT Life Safety & Security; and ABM hazmat responders Rudy Recio and George Walsh. An oil-like liquid was in fact dripping from the ceiling with a spill plume of approximately 25 feet. This liquid had the characteristic appearance and odor of diesel fuel. The spill was covered with anti-static spill pads, and a container was placed immediately beneath the drip points to collect the liquid.

A response plan to confine / contain / and collect the spent pads, plus the installation of a drip diversion system was being develop. It was noted that above and in close proximity to the drip point was a NYC Transit Authority electric closet. Even though the liquid had the appearance of diesel fuel, the level of concern was heighten with this information. When there is an unidentified oil-like liquid dripping from an unknown electric closet, the possibility of PCB contamination must be considered. We assume the liquid as suspect PCB-containing, and terminated our response plans until verified.

10/27, 1:00pm:

Investigation as to the source of the drip (leak) was incited by Ed Strauss, John O'Donnell, John Meyer, John Russo, and Bill Devlin. Rudy Reccio and George Walsh continued assembling the spill response equipment. The Materials Division was contacted and requested to arrange for immediate sampling with 12 hour turn-around time by the PA's call-in hazardous materials sampling and analysis contractor. The Materials Division was also

requested to notify and "make ready" the PA's hazardous materials incident response contractor in the event that a PCB clean-up was required.

10/27, 2:00pm:

The MERs, and WT and NYCTA ventilation ducts adjacent to the L Ramp were inspected; no unusual findings. Inquiries as to the delivery of diesel fuel for the WTD generators or those of our tenants was investigated; no deliveries were made. There was no construction. Entry into the Bankers Trust vault disclosed no unusual findings. Bob Waffenschmidt contacted the NYCTA in order to determine if their electric closet contains PCB transformers.

The NYC Fire Department station house (Engine 10 Ladder 10) on Liberty Street is performing underground storage tank remediation. Lt. Greg Atlas confirmed that UST work was performed; tanks pumped and filled. After discussing the incident with Lt. Atlas, he indicated that the Chief shall be contacted.

10/27, 3:30pm:

Armando Arcenal, Supervisor, Materials Division, arrived on site to collect samples of the liquid for PCB identification. Results due back by 9:00am 10/28. Response contractor notified and ready if required.

10/27, 4:00pm:

Lt. Atlas, plus a firefighter from their Hazmat Unit and the project engineer, together with two PA Police Officers visited the site. Actions and findings up to that point were discussed. Lt. Atlas requested a drawing of the location so that a determination as to the proximity of their tanks to the WTC can be made. LERA shall be requested to provide.

It needs to be noted that if we are dealing with a migrating oil lens generated over the years due to a leaking UST, this may be a long term problem. The Fire Dept knows this. There are many issues here. I will keep you posted as they develop.

Providing the sampling results are negative for PCB, the Plan for Wednesday, 10/28 is -

10/28, 9:30am:

Lenny Ardizzone, Chief, General Maintenance Section, was notified as to need of his assistance in the installation of a temporary diversion system.

An on-site meeting is set for 9:30am. First, we shall initiate the clean-up of the plume followed by the confinement of the area by spill pads.

This response consumed all of the anti-static spill pads maintained on site. An emergency order will be placed to order more.

If the samples come back as positive for PCB:

- 1) All response participants shall report to PA Medical
- 2) The appropriate regulatory agencies shall be notified: The US EPA, the

National Response Center, Coast Guard, NYS DEC, NYC DEP, and TA

3) Truckdock will be vacated

4) Response action incited.

Risk Management shall be notified

PA Public Relations will need to be contacted

If it gets to this level, the PA Police will need to implement their ICS.

I will keep you posted.

PT.

APPENDIX H-2

Hazardous Materials

APPENDIX H-2.1

Memorandum Regarding Hazardous Waste Management Plan

Annual Binder: *RCRA*

- 1) Hazardous Waste Generator Requirements
- 2) Hazardous Waste Storage Spill Response Plan
- 3) Training Certifications

Reference Binder: *Hazmat*

- 1) Training Certifications
- 2) Response Plan
- 3) Equipment Inventory

 This summary shall be revised as required, but at a minimum annually to reflect regulatory and operational changes. Should you have any questions, please contact me at x8507.


Phil Taylor

Subchapter I: Solid Wastes
Part 262: Standards Applicable To Generators of Hazardous Waste

Subpart A - General

262.10: Purpose, Scope, and Applicability

The WTC generates more than 2,200 pounds of hazardous waste per month. As such, this facility is classified as a large quantity generator (LQG). Based upon a review of the NYS Department of Environmental Conservation's Annual Waste Report, the WTC does not generate acutely hazardous waste.

The most common hazardous waste streams identified at the WTC include: Class 2 Flammable Gases, Class 3 Flammable Liquids, Class 8 Corrosives, and Class 9 Miscellaneous.

Universal Wastes generated at the WTC include florescent lamps.

Waste oil is generated from the Refrigeration, and Emergency Generator Plants, and the River Water Pump Station.

The following summarizes the types of hazardous wastes generated at the WTC:

HAZARD CLASS	GENERATION SOURCE
Class 2: Flammable Gas	Welding, cutting, torching gases
Class 3: Flammable Liquid	Gasoline, solvents
Class 8 : Corrosives	Cleaning solutions, acids, batteries
Class 9: Miscellaneous	PCB ballasts
Universal Waste	Fluorescent lamps
Waste Oil	Emergency generators, pumping systems

262.11: Hazardous Waste Determination

TCLP sampling and analysis for the determination of hazardous wastes is performed by an analytical laboratory under contract with the Engineering Department's Materials Management Division.

When available (and verifiable – "generator knowledge") product labels and MSDS are also used in the identification of hazardous wastes.

262.12: EPA Identification Numbers

The WTC's U.S. EPA Identification Number is NYD 981077480

Subpart B - The Manifest

262.20: General Requirements

Hazardous waste transportation, its treatment, and disposal are performed by vendors under contract with the Engineering Department's Materials Management Division.

262.21: Acquisition of Manifests

The WTC (generator state) utilizes the manifest specified by the "disposal" (consignment state) state.

262.22: Number of Copies

As specified, copies of each manifest are provided to the applicable regulatory agency, generator state and disposal state.

262.23: Use of the Manifest

Copies of each manifest are contained in the binder titled "Regulatory Permits and Licensing."

Phil Taylor: WTC Environmental Coordinator, and Art Burton: Assistant Environmental Coordinator, have the required certification under U.S. DOT 49 CFR, Subpart H, Section 172.704 - Training, to sign the manifests for the WTD. Training as required by Section 172.704 for hazardous waste consignment preparation was provided for George Walsh and Rudy Recio: Hazardous Materials Incident Responders. Training certifications can be found in the binders titled "Hazmat", and "RCRA".

Subpart C: Pre-Transportation Requirements

262.30: Packaging

The following packaging containers are used for the storage and disposal of hazardous wastes:

- Fifty five (55) gallon metal drums
- Eighty five (85) gallon metal drums
- Eighty five (85) gallon polypropylene drums
- Fiber drums
- Five (5) gallon plastic pails
- Pallets and plastic banding

262.31: *Labeling*

The following container labels are currently in use:

- Class 2: Flammable Gas
- Class 3: Flammable Liquid
- Class 8: Corrosive
- Class 9: Miscellaneous
- Used Waste Oil
- Universal Waste Fluorescent Lamps
- PCB
- Non-PCB
- Empty Drum
- Non-Hazardous
- Hazardous Waste

262.32: *Marking*

The following container markings are currently in use:

- Sample Collection Date
- Sample Number
- Accumulation Start Date

262.33: *Placarding*

Prior to the loading of a hazardous waste consignment, the transport vehicle is inspected to ensure that it has the appropriate U.S. DOT placard as per 49 CFR 172.500: Placarding.

262.34: *Accumulation Time*

The WTC is a large quantity generator. As such, hazardous waste cannot be stored on site in excess of ninety (90) days. Flammable gases and liquids are stored within the hazardous waste trailer located on the B1 Truckdock Level opposite the Customs House. Non-flammable wastes (label Class 8 and 9) are stored within the hazardous waste storage cage adjacent to the trailer. Universal Wastes (lamps) are stored on the B1 Level, back area.

When a waste is confirmed (use of generator knowledge or TCLP sampling) as a hazardous waste, an "Accumulation Start Date" label is affixed to the container. From that date, the ninety (90) day clock begins. To remain compliant with the ninety (90) day rule, on a weekly basis the storage areas are inspected not only for container integrity, but also for on-site storage time.

Hazardous wastes are typically stored in fifty-five (55) and eighty-five (85) gallon metal and polypropylene drums. Batteries are shrink wrapped on pallets, and lamps are contained in fiber drums or shrink wrapped onto pallets. When used, spill pads are placed into drums.

Waste is managed within the storage cage as follows:

- Wastes for which there is no generator knowledge requires sampling. These wastes are then:
 - identified with a WTC Sample Number label.

Wastes requiring TCLP sampling are stored in the “Sampling Required” portion of the cage.

- Wastes for which analytical results are pending are then:
 - identified with a WTC Sample Number label,

Wastes pending analytical results are moved into and stored in the “Results Pending” portion of the cage.

- Wastes for which there is generator knowledge, or have been TCLP analyzed for hazard determination are then:
 - identified with the appropriate Class label,
 - identified with an Accumulation Start Date label,
 - identified with a WTC Sample Number label,
 - identified with a Hazardous Waste label.

Hazardous wastes are stored within the “Known Hazardous Waste” portion of the cage.

On a weekly basis, the hazardous waste trailer, cage, and universal waste storage areas are inspected. A copy of the inspection form (see attached) is distributed to WT Operations, Life Safety & Security, and the WTC PA Police Command. Copies of the inspections forms are contained in the binder titled “RCRA”.

In addition to storage area inspections, the following weekly site inspections are in place: Week One: inspect MERs in 1 WTC, Week Two: inspect MERs in 2 WTC, Week Three: inspect MERs in 4/5 WTC, and Week Four: inspect all subgrade locations

The “World Trade Center’s Hazardous Materials and Waste Incident Response Plan” was prepared to establish the guidelines to follow when responding to a chemical release, or a hazardous waste storage incident. Copies of this Plan are contained in the binders titled “RCRA”, and “Hazmat”.

Subpart D: Recordkeeping and Reporting

262.40: Recordkeeping

Manifest copies, state transmittal memorandums, and NYS DEC quarterly / annual tax assessments are maintained in annual binders titled "Regulatory Permits & Licenses". Copies of laboratory reports, and the NYS DEC Annual Waste Report are contained in annual binders titled "Waste Profile".

262.41: Biennial Report

In accordance with PA policy, the WTD submits an Annual Waste Report to the NYS DEC. Copies of this report can be found in the annual binders titled "Waste Profile".

Chapter I: Solid Wastes
Part 265: Interim Status Standards For Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities

As required in Part 262.34(a)(4), the WTD is required to "... comply with the requirements for owners or operators in subparts C and D in 40 CFR part 265, with 265.16, and with 40 CFR 268.7(a)(4)."

265.16: Personal Training

WTD and contract staff (ABM Janitorial Services) responsible for the management of the hazardous waste storage locations at the WTC have the following levels of training:

Art Burton: WTC Assistant Environmental Coordinator –

- Hazardous Waste Management
- Hazardous Materials Transportation
- 40 Hours Hazwoper
- Permit-required confined spaces

George Walsh: ABM Janitorial Services –

- 16 Hour Emergency Response Operations
- 40 Hour Hazwoper
- Hazardous Materials Training
- Generating / Accumulating Hazardous Waste
- Permit-required confined spaces

Rudy Recio: ABM Janitorial Services –

- 16 Hour Emergency Response Operations
- 40 Hour Hazwoper
- Hazardous Materials Training
- Generating / Accumulating Hazardous Waste
- Permit-required confined spaces

Copies of the above training certificates are contained in the binders titled "Hazmat" and "RCRA". Site specific instruction in waste management was also provided by this office.

265.35: *Arrangements with Local Authorities*

In the event of a hazardous waste storage incident which is beyond the scope of our civilian response capacity, the PA Police shall be notified. At that point, the Police assumes I.C. In this instance, the PA Police shall implement their emergency notification plan. The PA Police shall either contact the PATH Emergency Services Unit, or the appropriate NYC Emergency Services Unit.

The PA has multi-facility Call-in contracts with hazardous material incident response contractors. Such contractors shall be notified in addition to the PA Police.

Subpart D: Contingency Plan and Emergency Procedures

265.51/ 52: *Purpose and Implementation of Contingency Plan /
Contents of Contingency Plan*

There are three contingency plans in effect at the WTC:

- The WTC Emergency Procedures Manual,
- The PA Police Incident Command System,
- The Hazardous Materials and Waste Incident Response Plan.

The Hazardous Materials and Waste Incident Response Plan is contained in the binders titled "Hazmat" and "RCRA". For building security reasons, the WTC Emergency Procedures and PA Police I.C. Plan are not provided.

265.54: *Copies of Contingency Plan*

Copies of the Hazardous Materials and Waste Incident Response Plan are maintained at the WTC Operations Desk, Maintenance Management Office, Life Safety & Security Office, and the PA Police Desk.

265.54: *Amendment of Contingency Plan*

The WTC Emergency Procedures Manual is amended annually; the Hazardous Materials and Waste Incident Response Plan is amended as required. The PA Police amend their I.C. Plan in accordance with their policy.

265.55, 56: *Emergency Coordinator / Emergency Procedures*

In the event of a hazardous waste storage incident which is beyond the response capacity of the civilian responders, the PA Police shall assume I.C. The WTC has continuous emergency response capacity.

APPENDIX H-2.2

Weekly Inspection of Hazardous Waste Storage Form

APPENDIX H-2.3

Hazardous Waste Generation List Jan. to Aug. 2000

- SECTION TWO -

HAZARDOUS WASTE GENERATION
JANUARY 2000 TO AUGUST 2000

I.	Fluorescent Lamps:	3.9 Tons
II.	PCB Ballasts:	2.6 Tons
III.	Batteries:	8.0 Tons
IV.	Liquid Wastes:	1.9 Ton
V.	Waste Oil:	<u>8.23 Tons</u>

Total: 24.63 Tons

The manifests identified in Items I to V can be found in the Supervising Engineer's Office in 2 WTC, Suite 3520.

APPENDIX H-3

Storage Tanks

APPENDIX H-3.1

Memo Regarding ASTs on-Site

Taylor, Phillip

To: Wayne
Subject: ABOVE GROUND STORAGE TANKS

I have an answer on the two tanks in question: Tank 005 - 1,080 gallons and Tank 007 - 275 gallons.

Both tanks are no longer under the ownership of the PA. The new owner of the tanks is Deutsche Bank. Tank 005 is located on the B1 level of 4 WTC. Tank 007 (considered a "day tank") is located on the 9th floor of 4 WTC.

It appears there was a breakdown in communication between WT department's as to the disposition of the tanks.

I shall prepare a memo to the 4 WTC Property Manager instructing them to notify Deutsche Bank of their registration obligation. In the meantime, we shall carry the tanks under our PBS permit.



Phil
9/27/00

APPENDIX H-4

PCBs

APPENDIX H-4.1

PCB Information

The following information is in response to your fax dated
Wednesday, October 18th.

Request: PCB-containing Hydraulic Fluid.

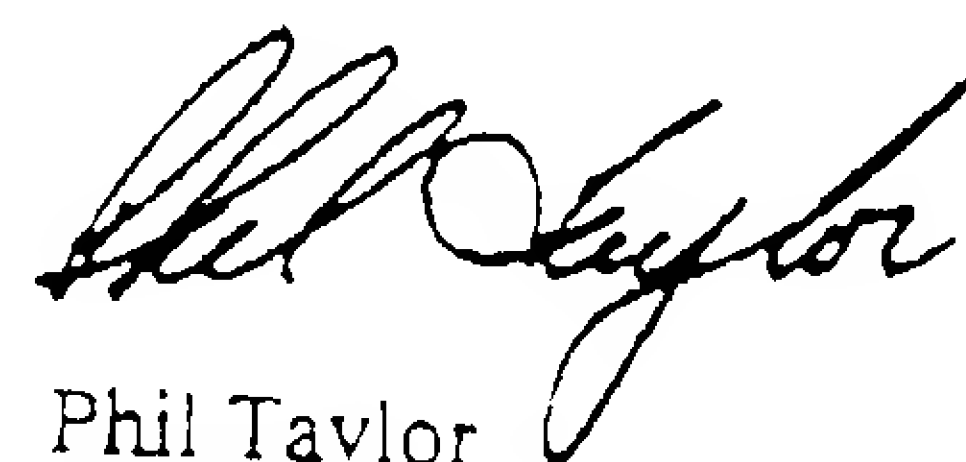
The hydraulic fluid (hydraulic oil # 32 AW) leaking from elevator FE-5, located on the B4 Level of 1 World Trade Center does not contain PCB. I have a copy of the Material Safety Data Sheet from the distributor; Consumers Oil, 515 South First Avenue, Mt. Vernon, N.Y.. Hydraulic elevator FE - 6 in 2 World Trade Center also uses hydraulic oil # 32 AW.

Relating to the trash compactors, please note that the hydraulic fluid is ordered through the Port Authority Stockroom from an approved list of chemical products established by the Inspection & Safety Division. The hydraulic fluid used for the trash compactors is either mineral or vegetable based. Both are non-PCB products.

Request: Additional Information Regarding Radio-Frequency Testing.

I do not have a copy of, nor do I have knowledge of the March, 1999 report prepared by Denny & Associates recommending additional RF exposure monitoring. All radio-frequency documents are available for your review in the Document Room.

Please contact me at (212) 435-8507 should you have any questions or require additional information.



Phil Taylor
World Trade Operations &
Maintenance Management

Cc: J. Connors, A. Reiss, L. Zucchi

THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY

MEMORANDUM

TO: Marvin Kirshner, Chief Environmental Engineer
FROM: Alan L. Reiss
DATE: September 25, 2000
SUBJECT: NYC DEP Order For PCB Information – All PA Facilities
REF: Letter: NYC DEP/Reiss, 9/18/00

COPY TO: E. Butcher, J. Castaldo, W. DeCota, M. Depallo, J. Green, R. Larrabe,
F. Lombardi, K. Philmus, P. Taylor

I received the attached Commissioner's order requesting information about high Voltage apparatus at the World Trade Center and any other address in New York City owned or operated by the PA. The WTC is in excellent shape, and we have never had PCB contaminated high voltage apparatus, though PATH did originally in their WTC station.

I know we have voluntarily cooperated and submitted data in the past to NYC DEP, with cover letter preserving our rights. I will hold off on staff preparing a response until we hear from you.



Alan L. Reiss
Director
World Trade Department

Attachment



**Department of
Environmental
Protection**

59-17 Junction Boulevard
Corona, New York
11368-5107

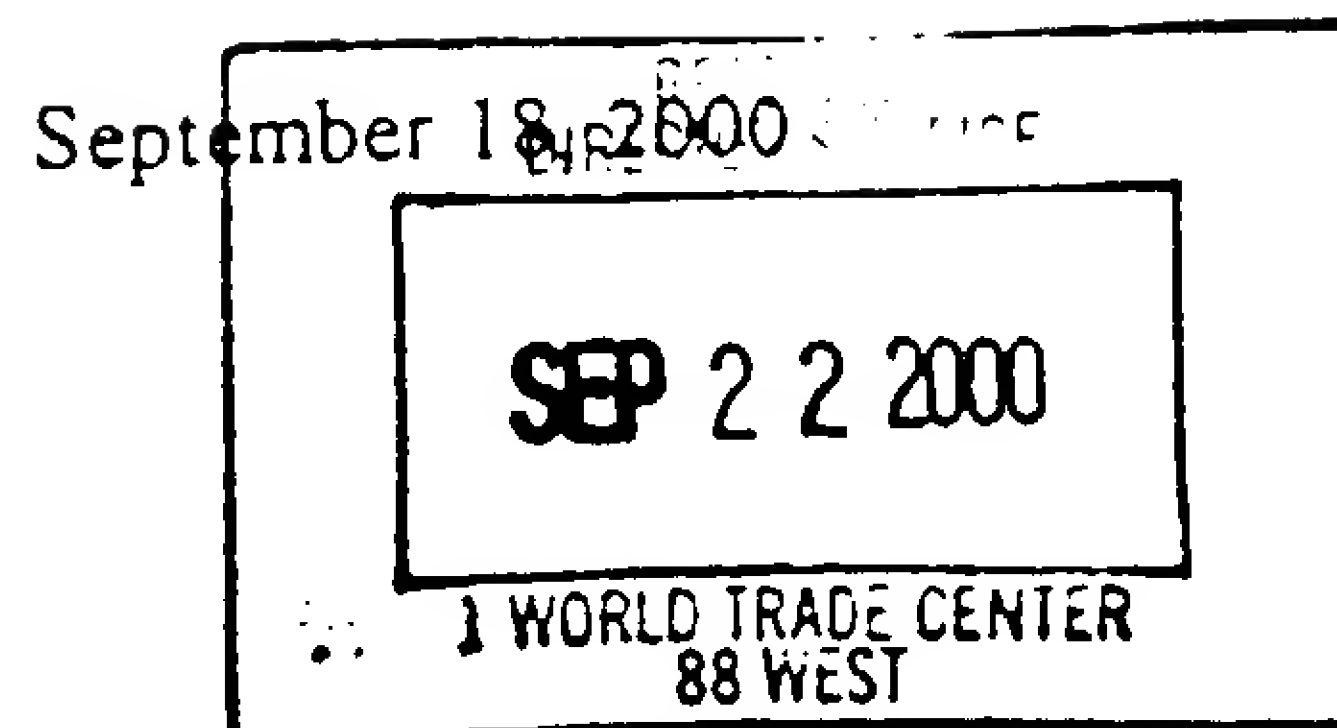
**Joel A. Miele Sr., P.E.
Commissioner**

**Robert E. Adamski, P.E.
Deputy Commissioner
Bureau of Wastewater
Treatment**

Tel (718) 595-5050
Fax (718) 595-5037
radamski@nysnet.net

Port Authority of NY & NJ
General Mgr-Allen Reiss
1 World Trade Ctr., 88th Fl.
New York, NY 10006

Certified Mail/ Return Receipt



**Re: Commissioner's Order
to submit information**

To Whom It May Concern:

The Department of Environmental Protection (DEP) is performing a study to determine the level of Polychlorinated Biphenyls (PCBs) in the environment. We are requesting some information about your establishment in order to properly conduct this study.

You are required, pursuant to Administrative Code Section 24-524(a) to complete the enclosed questionnaire for your establishment. In this questionnaire, we are asking you to provide some basic information regarding oil-filled equipment such as transformers, joint regulators, rectifiers and frequency changers, etc. owned and operated by your establishment at the above address or any other address within New York City. In addition, DEP requires submission of all historical information regarding spills of oil containing greater than 1 Part Per Million (PPM or mg/L) PCBs.

The questionnaire must be returned by October 25, 2000 to:

New York City Department of Environmental Protection
Planning & Permitting Section Chief, Joan Hall, Esq.
96-05 Horace Harding Expressway, 1st Floor
Corona, NY 11368

It is suggested that this information be sent by certified mail (return receipt requested) or delivered in person, thereby providing proof of its submission. Additionally, we recommended that you maintain a copy of the submittal.

The requirement to submit this information is an Order of the Commissioner of the Department of Environmental Protection, and failure to submit a completed questionnaire by the due date can result in you being issued a Notice of Violation (returnable to the New York City Environmental Control Board)

If you have any questions please contact Lily Lee at (718) 595-4809. Thank you, in advance, for your cooperation in this matter.

Sincerely,

Joan Hall, Esq., Chief
Planning & Permitting Section



www.ci.nyc.ny.us/dep

718) DEP-HELP

enc: High Voltage User Information Form

High Voltage User Information Form

Date

Name of Establishment: _____

Address: _____

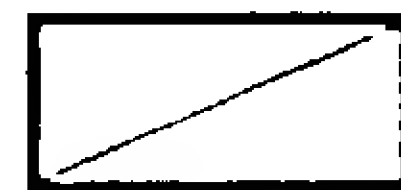
Borough: _____ Zip Code: _____

Type of Business: _____

Contact: _____ Phone#: _____

If more space is needed, photocopy the applicable page(s) and attach the page(s) to this form. For electrical equipment owned and operated your establishment named located at any other address(es) within New York City, please photocopy this form and fill in the relevant information. The information below should be used as a guideline in completing the forms attached:

- For purposes of this study, the definition of PCB oil is any fluid containing greater than 1 PPM of Polychlorinated Biphenyls (PCBs).
- In the "Condition" column, acceptable responses are: Excellent, Good, Fair and Poor.
- In the "retrofill Y/N" column, please indicate if the device had been retrofilled at any time. If the answer is "Y", please indicate the concentration of PCBs in the device before and after retrofilling, and the dates of retrofill (see following bullet).
- Use the top-left and bottom-right sections of the split PCB concentration cell to indicate concentrations in "before and after" situations, respectively.



- In the "Oil Type" column, please indicate the type of oil contained in the device (i.e. Mineral Oil, Askarel, Silicone, etc.)
- The Notes/ Comments space can be utilized to expand on any part(s) of the questionnaire. For equipment that do not contain PCB oils, or have < 1PPM of PCBs, please explain how this was determined in the Notes/ Comments section. Please specify the section (equipment) you are referring to. You may attach any additional information or explanations.

Completed By: _____

Name and Title (Print)

Signature

Total Number of Transformers On the Property: _____ Number of Transformers On the Property > 1 PPM PCBs _____

For the transformers with PCB concentrations > 1 PPM, please fill out the information below:

Volume (gal)	Location	Type	Serial #	Year Built	Condition	Retrofill Y/N	Date Of Retrofill	Oil Type	PCB Conc. (PPM)

For Type of transformer, specify Pad for pad mounted, Pole for pole top, and Vault for underground or recessed transformers.

Total Number of Joint Regulators On the Property: _____ Number of Joint Regulators On the Property > 1 PPM PCBs _____

For the joint regulators with PCB concentrations > 1 PPM, please fill out the information below:

Volume (gal)	Location	Year Built	Condition	Retrofill Y/N	Date Of Retrofill	Oil Type	PCB Conc. (PPM)

Total Number of Rectifiers On the Property: _____ Number of Rectifiers On the Property > 1 PPM PCBs _____

For the rectifiers with PCB concentrations > 1 PPM, please fill out the information below:

Volume (gal)	Location	Year Built	Condition	Retrofill Y/N	Date Of Retrofill	Oil Type	PCB Conc. (PPM)

Total Number of Frequency Changers On the Property: _____ Number of Frequency Changers On the Property > 1 PPM PCBs _____

For the frequency changers with PCB concentrations > 1 PPM, please fill out the information below:

Volume (gal)	Location	Year Built	Condition	Retrofill Y/N	Date Of Retrofill	Oil Type	PCB Conc. (PPM)

Historical List of Spills/Leaks of PCB oil:

Date Of Incident	Location	Type Of Unit	Incident Description

Notes and/or Comments:

Office Use Only

Case Number: _____ Borough: _____ Drainage Area: _____

Class: _____ Transformer Types: _____

Inspected By: _____ Date: _____

Signature: _____

Reviewed By: _____ Date: _____

Signature: _____

Supervisor's Comments: _____



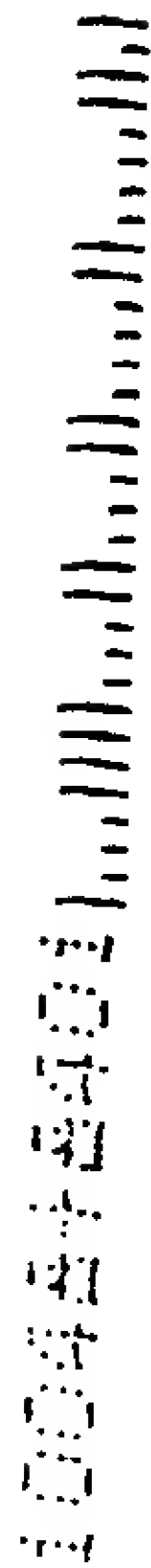
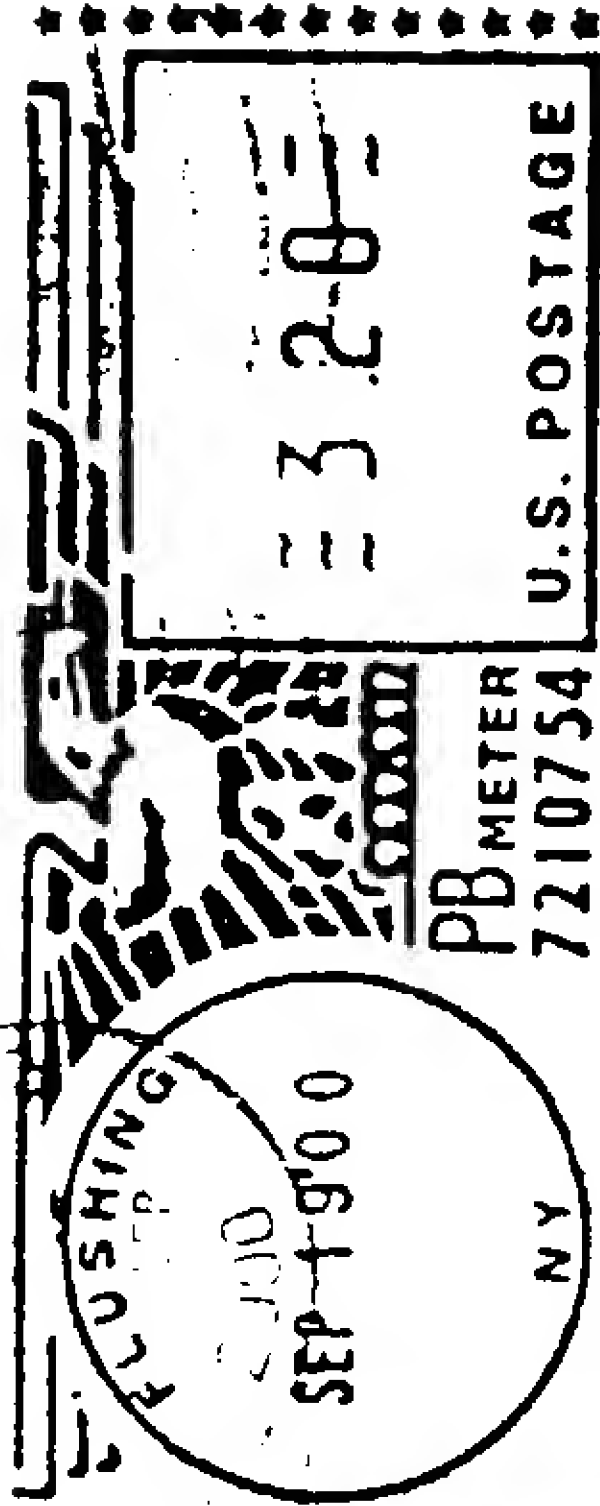
9-17 JUNCTION BOULEVARD
ORONA, NEW YORK 11368-5107



CERTIFIED MAIL

PLACE STICKER AT TOP OF ENVELOPE
TO THE RIGHT OF RETURN ADDRESS.
FOLD AT DOTTED LINE

Port Authority of NY & NJ
General Mgr-Allen Reiss
1 World Trade Ctr., 88th Fl. *gaw*
New York, NY 10006

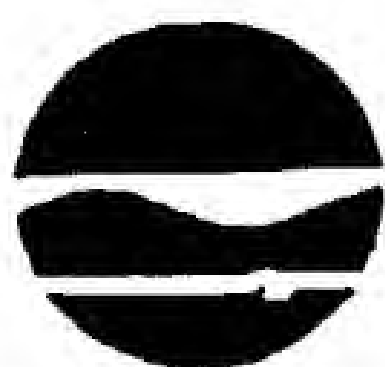


APPENDIX H-5

River Water Use

APPENDIX H-5.1

NY DEC SPDES Permit With Attachments

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
State Pollutant Discharge Elimination System (SPDES)DISCHARGE PERMIT
Special Conditions (Part I)

Industrial Code: 9999
 Discharge Class (CL): 01
 Toxic Class (TX): N
 Major Drainage Basin: 13
 Sub Drainage Basin: 01
 Water Index Number: H
 Compact Area: _____

SPDES Number: NY - 0006033
 DEC Number: 2-6205-00041/00001-0
 Effective Date (EDP): 05/01/99
 Expiration Date (ExDP): 05/01/2004
 Modification Date(s): / /
 Attachment(s): General Conditions (Part II) Date: 11/90

This SPDES permit is issued in compliance with Title 8 of Article 17 of the Environmental Conservation Law of New York State and in compliance with the Clean Water Act as amended, (33 U.S.C. Section 1251 et. seq.) (hereafter referred to as "the Act").

PERMITTEE NAME AND ADDRESS

Attention: Alan ReissName: The Port Authority of NY & NJStreet: One World Trade Center - 72ECity: New YorkState: NYZip Code: 10048

is authorized to discharge from the facility described below:

FACILITY NAME AND ADDRESS

Name: World Trade CenterLocation (C,T,V): New York (C)County: New YorkFacility Address: One World Trade CenterCity: New YorkState: NYZip Code: 10048NYTM - E: 588.3NYTM - N: 4507From Outfall No.: 001 at Latitude: 40° 42' 50" & Longitude: 74° 00' 50"into receiving waters known as: Hudson RiverClass: I

and: (list other Outfalls, Receiving Waters & Water Classifications)

002 - Hudson River - Class I

in accordance with the effluent limitations, monitoring requirements and other conditions set forth in Special Conditions (Part I) and General Conditions (Part II) of this permit.

DISCHARGE MONITORING REPORT (DMR) MAILING ADDRESS

Mailing Name: The Port Authority of NY & NJ, World Trade DepartmentStreet: One World Trade Center, 88WCity: New YorkState: NYZip Code: 10048Responsible Official or Agent: Alan ReissPhone: (212) 435-8501

This permit and the authorization to discharge shall expire on midnight of the expiration date shown and the permittee shall not discharge after the expiration date unless this permit has been renewed, or extended pursuant to law. To be authorized to discharge beyond the expiration date, the permittee shall apply for a permit renewal no less than 180 days prior to the expiration date shown above.

DISTRIBUTION: R. Newman, P.E., NYSDEC
 Hon. R. Giuliani, Mayor of NYC
 NYC DOH & DEP
 Interstate Sanitation Commission
 NYS DEC Div. of Water, BWCP
 NYS DEC Div. of Water, BWP

Permit Administrator: <u>John J. Ferguson</u>	
<u>Regional Permit Administrator</u>	
Address: <u>47-40 21st Street, 2nd Floor</u>	
<u>Long Island City, NY 11101</u>	
Signature: <u>[Signature]</u>	Date: <u>04/12/99</u>

FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning EDP (01/27/99)
and lasting until EDP + 5 YEARS (01/27/04)
the discharges from the permitted facility shall be limited and monitored by the permittee as specified below:

Outfall Number & Effluent Parameter	Discharge Limitations			Minimum Monitoring Requirements	
	Daily Avg.	Daily Max.	Units	Measurement Frequency	Sample Type
<u>001, 002 - Air Conditioning, Computer Cooling and Seal Pump Water ³</u>					
Flow	Monitor	Monitor	MGD	Continuous	Pump Log
Discharge Temperature	Monitor	91	°F	Continuous	Recorder
Intake-Discharge Temperature Difference	Monitor	17	°F	Daily	Calculation
Total Residual Chlorine ^a	Monitor	0.2	mg/l	3 times per week	4 Equally spaced grab samples per sampling event during periods of chlorination
pH ^b	Monitor	Monitor	SU	2/month	Grab

- ^a Total Residual Chlorine shall not be discharged more than two hours per unit per day. There shall not be simultaneous chlorination of separable portions in a single unit or more than one unit at one time.
- ^b The intake pH range shall not be extended more than 0.1 pH unit.

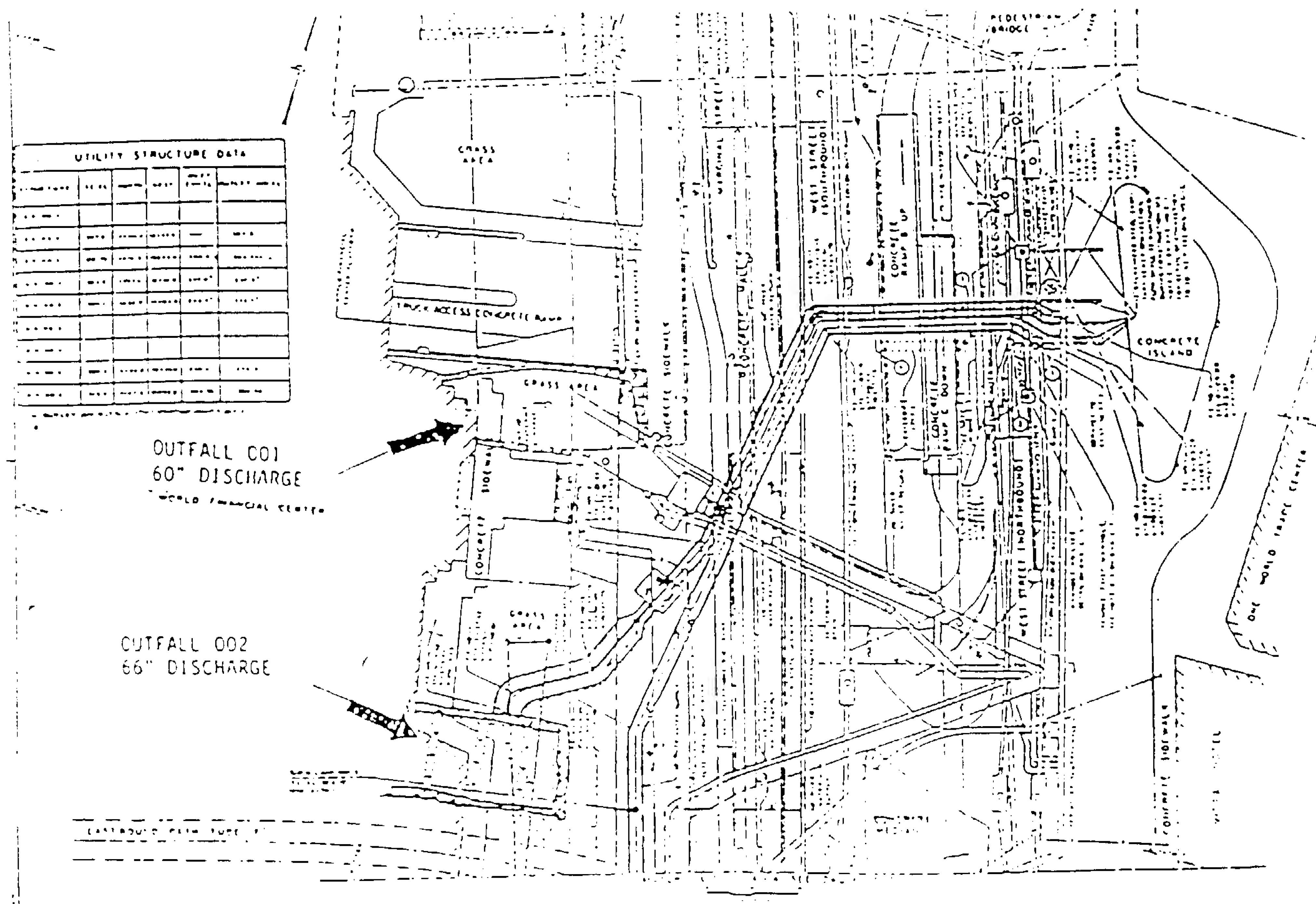
Additional Requirements

- The permit application must list all the corrosion/scale inhibitors or biocidal-type compounds used by the permittee. No other compounds may be used. If use of new boiler/cooling water additives is intended, application must be made prior to use.
- Intake velocity at each fixed and/or traveling screen and at the first set of bar racks shall not exceed 1.8 F.P.S.
- Only one discharge line (001 or 002) may be operated at a time. Simultaneous use of Outfalls 001 and 002 is not allowed.

The daily maximum discharge means the total discharge by weight or in other appropriate units as specified herein, during any calendar day.

MONITORING LOCATIONS

The permittee shall take samples and measurements, to comply with the monitoring requirements specified in this permit, at the location(s) indicated below: (Show sampling locations and outfalls with sketch or flow diagram as appropriate). For 001 and 002, at basement 2 level in the valve room, prior to discharge to the Hudson River.



DISCHARGE NOTIFICATION REQUIREMENTS

- (a) Except as provided in (c), (f) and (g) of these Discharge Notification Act requirements, the permittee shall install and maintain identification signs at all outfalls to surface waters listed in this permit. Such signs shall be installed within 90 days of the Effective Date of this Modification.
- (b) Subsequent modifications to or renewal of this permit does not reset or revise the deadline set forth in (a) above, unless a new deadline is set explicitly by such permit modification or renewal.
- (c) The Discharge Notification Requirements described herein do not apply to outfalls from which the discharge is composed exclusively of storm water, or discharges to ground water.
- (d) The sign(s) shall be conspicuous, legible and in as close proximity to the point of discharge as is reasonably possible while ensuring the maximum visibility from the surface water and shore. The signs shall be installed in such a manner to pose minimal hazard to navigation, bathing or other water related activities. If the public has access to the water from the land in the vicinity of the outfall, an identical sign shall be posted to be visible from the direction approaching the surface water.

The signs shall have minimum dimensions of eighteen inches by twenty four inches (18" x 24") and shall have white letters on a green background and contain the following information:

- (e) For each discharge required to have a sign in accordance with a), the permittee shall, concurrent with the installation of the sign, provide a repository of copies of the Discharge Monitoring Reports (DMRs), as required by the **RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS** page of this permit. This repository shall be open to the public, at a minimum, during normal daytime business hours. The repository may be at the business office repository of the permittee or at an off-premises location of its choice (such location shall be the village, town, city or county clerk's office, the local library or other location as approved by the Department). In accordance with the **RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS** page of your permit, each DMR shall be maintained on record for a period of three years.

(continued)

- (f) If, upon November 1, 1997, the permittee has installed signs that include the information required by 17-0815-a(2)(a) of the ECL, but do not meet the specifications listed above, the permittee may continue to use the existing signs for a period of up to five years, after which the signs shall comply with the specifications listed above.
- (g) All requirements of the Discharge Notification Act, including public repository requirements, are waived for any outfall meeting any of the following circumstances, provided Department notification is made in accordance with (h):
- (i) such sign would be inconsistent with any other state or federal statute;
 - (ii) the Discharge Notification Requirements contained herein would require that such sign could only be located in an area that is damaged by ice or flooding due to a one-year storm or storms of less severity;
 - (iii) instances in which the outfall to the receiving water is located on private or government property which is restricted to the public through fencing, patrolling, or other control mechanisms. Property which is posted only, without additional control mechanisms, does not qualify for this provision;
 - (iv) instances where the outfall pipe or channel discharges to another outfall pipe or channel, before discharge to a receiving water; or
 - (v) instances in which the discharge from the outfall is located in the receiving water, two-hundred or more feet from the shoreline of the receiving water.
- (h) If the permittee believes that any outfall which discharges wastewater from the permitted facility meets any of the waiver criteria listed in (g) above, notification (form enclosed) must be made to the Department's Bureau of Water Permits, Central Office, of such fact, and, provided there is no objection by the Department, a sign and DMR repository for the involved outfall(s) are not required. This notification must include the facility's name, address, telephone number, contact, permit number, outfall number(s), and reason why such outfall(s) is waived from the requirements of discharge notification. The Department may evaluate the applicability of a waiver at any time, and take appropriate measures to assure that the ECL and associated regulations are complied with.
- (i) The permittee shall periodically inspect the outfall identification signs in order to ensure that they are maintained, are still visible and contain information that is current and factually correct.

SCHEDULE OF COMPLIANCE

a) The permittee shall comply with the following schedule.

Action Code	Outfall Number(s)	Compliance Action	Due Date
	001	Permittee shall provide written notice to the Department of the proposed commencement of chlorination.	Prior to commencement of chlorination
	001	Permittee shall submit a report describing alternate methods to control biofouling of heat exchangers. Mechanical cleaning and periodic chlorination must be considered. Details of automatic feed systems and dechlorination systems to ensure discharge of chlorine within permit limits, must be considered.	Six months after initiation of chlorination

b) The permittee shall submit a written notice of compliance or non-compliance with each of the above schedule dates no later than 14 days following each elapsed date, unless conditions require more immediate notice under terms of the General Conditions (Part II), Section 5. All such compliance or non-compliance notification shall be sent to the locations listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS. Each notice of non-compliance shall include the following information:

1. A short description of the non-compliance;
2. A description of any actions taken or proposed by the permittee to comply with the elapsed schedule requirements without further delay and to limit environmental impact associated with the non-compliance;
3. A description of any factors which tend to explain or mitigate the non-compliance; and
4. An estimate of the date the permittee will comply with the elapsed schedule requirement and an assessment of the probability that the permittee will meet the next scheduled requirement on time.

c) The permittee shall submit copies of any document required by the above schedule of compliance to NYSDEC Regional Water Engineer at the location listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS, unless otherwise specified in this permit or in writing by the Department.

RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS

- a) The permittee shall also refer to the General Conditions (Part II) of this permit for additional information concerning monitoring and reporting requirements and conditions.
- b) The monitoring information required by this permit shall be summarized, signed and retained for a period of three years from the date of the sampling for subsequent inspection by the Department or its designated agent. Also;
- [X] (if box is checked) monitoring information required by this permit shall be summarized and reported by submitting completed and signed Discharge Monitoring Report (DMR) forms for each 1 month reporting period to the locations specified below. Blank forms are available at the Department's Albany office listed below. The first reporting period begins on the effective date of this permit and the reports will be due no later than the 28th day of the month following the end of each reporting period.

Send the original (top sheet) of each DMR page to:

Department of Environmental Conservation
Division of Water
Bureau of Watershed Compliance Programs
50 Wolf Road
Albany, New York 12233-3506
Phone: (518) 457-3790

Send the first copy (second sheet) of each DMR page to:

Department of Environmental Conservation
Regional Water Engineer
Region 2
1 Hunter Point Plaza
47-40 21st Street
Long Island City, New York 11101

- c) A monthly "Wastewater Facility Operation Report..." (form 92-15-7) shall be submitted (if box is checked) to the [] Regional Water Engineer and/or [] County Health Department or Environmental Control Agency listed above.
- d) Noncompliance with the provisions of this permit shall be reported to the Department as prescribed in the attached General Conditions (Part II).
- e) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.
- f) If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring shall be included in the calculations and recording on the Discharge Monitoring Reports.
- g) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.
- h) Unless otherwise specified, all information recorded on the Discharge Monitoring Report shall be based upon measurements and sampling carried out during the most recently completed reporting period.
- i) Any laboratory test or sample analysis required by this permit for which the State Commissioner of Health issues certificates of approval pursuant to section five hundred two of the Public Health Law shall be conducted by a laboratory which has been issued a certificate of approval. Inquiries regarding laboratory certification should be sent to the Environmental Laboratory Accreditation Program, New York State Health Department Center for Laboratories and Research, Division of Environmental Sciences, The Nelson A. Rockefeller State Plaza, Albany, New York 12201.

waiver.wpd(12/98) **NOTICE OF WAIVER**

**Pursuant To The Discharge Notification Act
Environmental Conservation Law 17-0815-a**

This form must be used if you wish to notify the New York State Department of Environmental Conservation (DEC) that you believe one or more outfalls listed on your SPDES permit can be waived from the requirements of the Discharge Notification Act (DNA).

INSTRUCTIONS:

1. Please note that the DNA applies only to discharges of *wastewater* to *surface* water, and **DOES NOT APPLY** to the following situations:
 - Discharges consisting of storm water only (not mixed with wastewater or otherwise contaminated).
 - Discharges to ground water

If the discharge in question is to ground water, or consists of storm water *only*, an outfall sign and data repository are not required, and *it is not necessary to submit a Notice of Waiver.*
2. If your facility or commercial establishment holds more than one SPDES permit issued by the DEC, and waivers are claimed for outfalls under multiple permits, a separate Notice of Waiver form must be completed for the outfall(s) listed under EACH permit. All Notice of Waiver forms will be considered independent of each other.
3. More than one outfall may be listed on a Notice of Waiver form. However, separate Notice of Waiver forms must be used if any single criterion used as the basis for waiver does not apply to all outfalls.
4. If you believe that the outfall(s) discharging from your facility or commercial establishment meets any of the waiver criteria listed on page 2, indicate so with a check mark in the appropriate box(es).
5. Discharge description(s) and outfall number(s) can be obtained from the SPDES permit.
6. When complete, send the second page only of this Notice of Waiver to: New York State Department of Environmental Conservation, Bureau of Water Permits, Room 314, 50 Wolf Road, Albany, NY 12233.
7. When a Notice of Waiver is received, a letter acknowledging receipt by the DEC will be sent to you. The Notice of Waiver will be evaluated by the DEC's Regional Water Engineer to ensure that the DEC concurs with the justification(s) indicated for the waiver. The Notice of Waiver remains effective *unless* you are notified otherwise by the DEC.

NOTICE OF WAIVER

Pursuant To The Discharge Notification Act Environmental Conservation Law 17-0815-a

In accordance with 17-0815-a(2)(a) of the Environmental Conservation Law, notice is hereby given that, to the best of my knowledge, the outfall(s) discharging from the facility described below meets one or more requirements for waiver from the Discharge Notification Act (DNA), as indicated below:

- ☐ A sign would be inconsistent with any other state or federal statute.
- ☐ A sign must be located in an area that is damaged by ice or flooding during a one -year storm, or storms of less severity.
- ☐ The outfall is located on private or government property (circle as appropriate) which is restricted to the public through fencing, patrolling, or other control mechanisms (posting only, without additional control mechanisms, does not qualify for this provision).
- ☐ The outfall pipe or channel discharges to another outfall pipe or channel, before discharge to a receiving water.
- ☐ The outfall is located two-hundred or more feet from the shoreline of the receiving water.

Permit Number: NY

Company Name: _____

Contact Name: _____

Contact Address: _____

Contact Telephone: _____

Discharge Description (storm water, industrial wastewater, sanitary wastewater, commercial wastewater, other):

Outfall Number(s): _____

Certification:

I understand that completing and sending this Notice of Waiver does not guarantee a final determination of waiver from the DNA. This Notice of Waiver will be reviewed by the Regional Water Engineer and, provided the New York State Department of Environmental Conservation does not object, the outfall(s) described above is/are waived from all requirements of the DNA (including sign posting and monitoring data repository).

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM (SPDES)
DISCHARGE PERMIT**

**GENERAL CONDITIONS
(PART II)**

<u>SECTION</u>	<u>PAGE(s)</u>
1. General Provisions	1-2
2. Special Reporting Requirements for Existing Manufacturing, Commercial, Mining and Silvicultural Dischargers	2
3. Exclusions	2
4. Modification, Suspension, Revocation	2-3
5. Reporting Noncompliance	3-4
6. Inspection and Entry	4
7. Transfer of Permit	4
8. Permit Renewal	4-5
9. Special Provisions - New or Modified Disposal Systems	5
10. Monitoring, Recording, and Reporting	5-8
10.1 General	5-6
10.2 Signatories and Certification	6-7
10.3 Recording of Monitoring Activities and Results	7
10.4 Test and Analytical Procedures	7-8
11. Disposal System Operation and Quality Control	8-10
11.1 General	8
11.2 Bypass	8-9
11.3 Upset	9-10
11.4 Special Condition-Disposal Systems with Septic Tanks	10
11.5 Sludge Disposal	10
12. Conditions Applicable to a Publicly Owned Treatment Works (POTW)	11-12
12.1 General	10-11
12.2 National Pretreatment Standards Prohibited Discharges	11-12

1. GENERAL PROVISIONS

This permit, or a true copy, shall be kept readily available for reference at the wastewater treatment facility.

- b. A determination has been made on the basis of a submitted application, plans, or other available information, that compliance with the specified permit provisions will reasonably protect classified water use and assure compliance with applicable water quality standards. Satisfaction of permit provisions notwithstanding, if operation pursuant to the permit causes or contributes to a condition in contravention of State water quality standards, or if the Department determines, on the basis of notice provided by the permittee and any related investigation, inspection or sampling, that a modification of the permit is necessary to prevent impairment of the best use of the waters or to assure maintenance of water quality standards or compliance with other provisions of ECL Article 17, or the Act, the Department may require such a modification and may require abatement action to be taken by the permittee and may also prohibit the noticed act until the permit has been modified.
- c. All discharges authorized by this permit shall be consistent with the terms and conditions of this permit. Facility expansion or other modifications, production increases, product changes, product process modifications, and wastewater collection, treatment and disposal system changes which will result in new or increased discharges of pollutants into the waters of the state must be reported by submission of a new SPDES application, in which case the permit may be modified accordingly. The discharge of any pollutant, not identified and authorized, or the discharge of any pollutant more frequently than, or at a level in excess of, that identified and authorized by this permit shall constitute a violation of the terms and conditions of this permit. Facility modifications, process modifications, or production decreases which result in decreased discharges of pollutants must be reported by submission of written notice to the permit-issuing authority, in which case the permit-issuing authority may require the permittee to submit a new SPDES application.
- d. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

If the discharge(s) permitted herein originate within the jurisdiction of an interstate water pollution control agency, then the permitted discharge(s) must also comply with any applicable effluent standards or water quality standards promulgated by that interstate agency.

- f. The permittee must comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the Environmental Conservation Law and the Clean Water Act and is grounds for enforcement action, for permit suspension, revocation and modification, and for denial of a permit renewal application.
- g. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, the permittee shall promptly submit such facts or information.
- h. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- i. The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.
- j. The Clean Water Act provides that any person who violates a permit condition implementing sections 301, 302, 306, 307, 308, 318, or 405 of the Clean Water Act is subject to a civil penalty not to exceed \$25,000 per day of such violations. Any person who willfully or negligently violates permit conditions implementing sections 301, 302, 306, 307, or 308 of the Clean Water Act is subject to a fine of not less than \$5,000 nor more than \$50,000 per day of violation, or by imprisonment for not more than three years, or both.
- k. The filing of a request by the permittee for a permit modification, revocation, transfer, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, suspending, or revoking this permit, or to determine compliance with this permit. The permittee shall also furnish to the Department, upon request, copies of records required to be kept by this permit.

- m. Nothing in this permit relieves the permittee from a requirement to obtain other permits required by law, including, but not limited to:
- (1) an air contamination source permit/certification under 6NYCRR Part 201;
 - (2) a waste transporter permit under 6NYCRR Part 364, or
 - (3) a radioactive waste discharge permit under 6NYCRR Part 380.

2. SPECIAL REPORTING REQUIREMENTS FOR EXISTING MANUFACTURING, COMMERCIAL, MINING, AND SILVICULTURAL DISCHARGERS

All existing manufacturing, commercial, mining and silvicultural dischargers must notify the Department as soon as they know or have reason to believe:

- a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not specifically controlled in the permit pursuant to General Provision 1 (c) herein. For the purposes of this section, recurrent accidental or unintentional spills or releases shall be considered to be a discharge on a frequent basis.
- b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - (1) 500 micrograms/liter,
 - (2) 1.0 milligram/liter for antimony,
 - (3) five times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR §122.21(g)(7), or
 - (4) the level established by the Department in accordance with 40 CFR §122.44(f).
- c. That they have begun or expect to begin to use or manufacture as an intermediate or final product or by-product, any toxic pollutant which was not reported in the permit application under 40 CFR §122.21(g)(9) and which is being or may be discharged to waters of the State.

EXCLUSIONS

- a. The issuance of this permit by the Department and the receipt thereof by the Applicant does not supersede, revoke or rescind an order or modification thereof or any determination by the Commissioner issued heretofore by the Department or any of the terms, conditions or requirements contained in such order or modification thereof unless specifically intended by said order.
- b. The issuance of this permit does not convey any proprietary rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to real property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations, nor does it obviate the necessity of obtaining the assent of any other jurisdiction as required by law for the discharge authorized.
- c. This permit does not authorize or approve the construction of any onshore or offshore physical structures or facilities or the undertaking of any work in any navigable waters.
- d. Land and hazardous substance liability. The imposition of liabilities upon, or the institution of any legal action against the permittee under Section 311 of the Clean Water Act shall be in conformance with regulations promulgated pursuant to Section 311 governing the applicability of Section 311 of the Clean Water Act to discharges from facilities with NPDES permits.

4. MODIFICATION, SUSPENSION, REVOCATION

- a. If the permittee fails or refuses to comply with any requirement in this permit, such noncompliance shall constitute a violation of the permit for which the Commissioner may, modify, suspend, or revoke the permit after notice and opportunity for hearing and take direct enforcement action pursuant to law. When, at any time during or prior to a period for compliance, the permittee announces or otherwise lets it be known, or the Commissioner on reasonable cause determines, that the permittee will not make the requisite efforts to achieve compliance with an interim or final requirement, the Commissioner may modify, suspend or revoke the permit and take direct enforcement action pursuant to law, without waiting for expiration of the period for compliance with such requirements.

- b. After notice and opportunity for a hearing, the Department may modify, suspend or revoke this permit in whole or in part during its term for cause including, but not limited to, the following:
- (1) violation of any provision of this permit; or
 - (2) obtaining this permit by misrepresentation or failure to disclose fully all relevant facts at any time; or materially false or inaccurate statements or information in the application or the permit; or
 - (3) a change in any physical circumstances, requirements or criteria applicable to discharges, including, but not limited to:
 - (i) standards for construction or operation of the discharging facility;
 - (ii) the characteristics of the waters into which such discharge is made;
 - (iii) the water quality criteria applicable to such is made;
 - (iv) the classification of such waters; or
 - (v) effluent limitations or other requirements applicable pursuant to the Act or State Law.
 - (4) a determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification, a suspension, or revocation.
 - (5) violation of any order of the Commissioner or provision of ECL or regulation promulgated thereunder, which is related to the permitted activity
 - (6) Newly discovered material information or material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of this permit.
- c. If any applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under section 307(a) of the Clean Water Act for a toxic pollutant and that a standard or prohibition is more stringent than any limitation on the pollutant in the permit, the Department shall institute proceedings to modify the permit in order to achieve conformance with the toxic effluent standard or prohibition and in conformance with ECL 17-0609.

5. REPORTING NONCOMPLIANCE

- a. Anticipated noncompliance. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- b. Twenty-four hour reporting. The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written noncompliance report shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances. The written noncompliance report shall contain a description of the noncompliance and its cause, the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue, and steps taken or planned to reduce, eliminate, and prevent the noncompliance and its recurrence.
- (1) The following shall be included as information which must be reported within 24 hours under paragraph (b) above:
 - (i) any unanticipated bypass which violates any effluent limitation in the permit;
 - (ii) any upset which violates any effluent limitation in the permit;
 - (iii) violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit to be reported within 24 hours;
 - (iv) any unusual situation, caused by a deviation from normal operation or experience (e.g. upsets, bypasses, inoperative treatment process units, spills or illegal chemical discharges or releases to the collection system) which create a potentially hazardous condition;
 - (v) any dry weather overflow(s).
 - (2) The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

(3) Reports required by this section shall be filed with the Department's regional office having jurisdiction over the permitted facility. During weekends, oral noncompliance reports, required by this paragraph, may be made at (518) 457-7362.

- c Other noncompliance. The permittee shall report all instances of noncompliance not otherwise required to be reported under this section or other sections of this permit, with each submitted copy of its Discharge Monitoring Reports until such noncompliance ceases. Such noncompliance reports shall contain the information listed in paragraph (b) of this section.
- d Duty to mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

6 INSPECTION AND ENTRY

The permittee shall allow the Commissioner of the Department, the EPA Regional Administrator, the County Health Department, or their authorized representatives, upon the presentation of credentials and other documents as may be required by law, to:

- a enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- b have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, including records maintained for purposes of operation and maintenance;
- c inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit;
- d sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act or Environmental Conservation Law, any substances or parameters at any location; and
- e enter upon the property of any contributor of wastewater to the system under authority of the permittee's Sewer Use Ordinance (municipalities) or Regulations

7 TRANSFER OF PERMIT

- a A permit is transferable only with prior written approval of the Department.
- b To transfer a permit to a new owner or operator, written application must be made to the Department. Application for Permit Transfer forms can be obtained from, and must be submitted to, the appropriate regional office of the Department's Division of Regulatory Affairs.
- c In order for operation of the facility to continue without interruption, application must be made at least 30 days in advance of the transfer.
- d If, when the ownership or operation is transferred, the volume or composition of the facility discharge will be altered, a new application for permit may be required

8 PERMIT RENEWAL

- a Any permittee who wishes to continue to discharge after the expiration date of a permit shall apply for renewal of its permit no later than 180 days prior to the permit's expiration date (unless permission for a later date has been granted by the Department) by submitting any forms, fees, or supplemental information which may be required by the Department. Upon request, the Department shall provide the permittee with specific information concerning the forms, fees, and supplemental information required
- b When a permittee has made timely and sufficient application for the renewal of a permit or a new permit with reference to any activity of a continuing nature, the existing permit does not expire until the application has been finally determined by the Department, and, in case the application is denied or the terms of the new permit limited, until the last day for seeking review of the Department order or a later date fixed by order of the reviewing court, provided that this subdivision shall not affect any valid Department action then in effect summarily suspending such permit
- c A municipality applying for a permit (renewal) shall submit evidence that it is enforcing an up-to-date enacted Sewer Use Ordinance which was approved by the Department

- d. A municipality applying for a permit (renewal) shall have an approved method of residuals disposal in compliance with Part 6-NYCRR 360 and 364.
- e. A municipality receiving industrial waste shall submit evidence that it is operating (or implementing) its industrial pretreatment program in accordance with Part 6 NYCRR 651.53(f).

9. SPECIAL PROVISIONS - NEW OR MODIFIED DISPOSAL SYSTEMS OR SERVICE AREAS

- a. Prior to construction of any new or modified waste disposal system or modification of a facility or service area generating wastewater which could alter the design volume of, or the method or effect of treatment or disposing of the sewage, industrial waste or other wastes, from an existing waste disposal system, the Permittee shall submit to the Department or its designated field office for review, an approvable engineering report, plans, and specifications which have been prepared by a person or firm licensed to practice Professional Engineering in the State of New York.
- b. The construction of the above new or modified disposal system shall not start until the Permittee receives written approval of the system from the Department or its designated field office.
- c. The construction of the above new or modified disposal system shall be under the general supervision of a person or firm licensed to practice Professional Engineering in New York State. Upon completion of construction, that person or firm shall certify to the Department or its designated field office that the system has been fully completed in accordance with the approved engineering report, plans and specifications, permit and letter of approval; and the permittee shall receive written acceptance of such certificate from the Department or designated field agency prior to commencing discharge.
- d. The Department and its designated field offices review wastewater disposal system reports, plans, and specifications for treatment process capability only, and approval by either office does not constitute approval of the system's structural integrity.

10. MONITORING, RECORDING, AND REPORTING

10.1 GENERAL

- a. The permittee shall comply with all recording, reporting, monitoring and sampling requirements specified in this permit and such other additional terms, provisions, requirements or conditions that the Department may deem to be reasonably necessary to achieve the purposes of the Environmental Conservation Law, Article 17, the Act, or rules and regulations adopted pursuant thereto.
- b. Samples and measurements taken to meet the monitoring requirements specified in this permit shall be representative of the quantity and character of the monitored discharges. Composite samples shall be composed of a minimum of 8 grab samples collected over the specified collection period, either at a constant sample volume for a constant flow interval or at a flow-proportioned sample volume for a constant time interval, unless otherwise specified in Part I of this permit. For GC/MS Volatile Organic Analysis (VOA), aliquots must be combined in the laboratory immediately before analysis. At least 4 (rather than 8) aliquots or grab samples should be collected over the specified collection period. Grab sample means a single sample, taken over a period not exceeding 15 minutes.
- c. Accessible sampling locations must be provided and maintained. New sampling locations shall be provided if existing locations are deemed unsuitable by the Department or its designated field agency.
- d. Actual measured values of all positive analytical results obtained above the Practical Quantitation Limit (PQL)¹ for all monitored parameters shall be recorded and reported, as required by this permit; except, where parameters are limited in this permit to values below the PQL, actual measured values for all positive analytical results above the Method Detection Limit (MDL)² shall be reported.

¹ Practical Quantitation Limit (PQL) is the lowest level that can be measured within specified limits of precision and accuracy during routine laboratory operations on most effluent matrices.

² Method Detection Limit (MDL) is the level at which the analytical procedure referenced is capable of determining with a 99% probability that the substance is present. This value is determined in distilled water with no interfering substances present. The precision at this level is $\pm 100\%$.

- e. The permittee shall periodically calibrate and perform manufacturer's recommended maintenance procedures on all monitoring and analytical instrumentation to insure accuracy of measurements. Verification of maintenance shall be logged into the daily record book(s) of the facility. The permittee shall notify the Department's regional office immediately if any required instrumentation becomes inoperable. In addition, the permittee shall verify the accuracy of their measuring equipment to the Department's Regional Office annually.
- f. The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit, shall upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years per violation or by both. If a conviction of such person is for a violation committed after a first conviction of such person under this paragraph, punishment shall be a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or by both.

10.2 SIGNATORIES AND CERTIFICATION

- a. All reports required by this permit shall be signed as follows
 - (1) for a corporation: by a responsible corporate officer. For the purposes of this section, a responsible corporate officer means:
 - (i) a president, secretary, treasurer, or a vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making function for the corporation, or
 - (ii) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures
 - (2) for a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
 - (3) for a municipality, state, federal, or other public agency: by either a principal or executive officer or ranking elected official. For purposes of this section, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency; or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency; or
 - (4) a duly authorized representative of the person described in items (1), (2), or (3). A person is a duly authorized representative only if
 - (i) the authorization is made in writing by a person described in paragraph (a)(1), (2), or (3) of this section
 - (ii) the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and
 - (iii) the written authorization is submitted to the Department
- b. Changes to authorization. If an authorization under subparagraph (a)(4) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of subparagraph (a)(4) of this section must be submitted to the Department prior to or together with any reports, information, or applications to be signed by an authorized representative
- c. Certification. Any person signing a report shall make the following certification.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision, in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the permit or persons who manage the

system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations."

- d. The Clean Water Act provides that any person who knowingly makes any material false statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or by both. If a conviction of such person is for a violation committed after a first conviction of such person under this paragraph, punishment shall be a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or by both.

10.3 RECORDING OF MONITORING ACTIVITIES AND RESULTS

- a. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.
- b. Records of monitoring information shall include:
- (1) the date, exact place, and time of sampling or measurements,
 - (2) the individual(s) who performed the sampling or measurements;
 - (3) the date(s) analyses were performed,
 - (4) the individual(s) who performed the analyses,
 - (5) the analytical techniques or methods used, and
 - (6) the results of such analyses.

10.4 TEST AND ANALYTICAL PROCEDURES

- a. Monitoring and analysis must be conducted using test procedures promulgated, pursuant to 40 CFR Part 136, except:
- (1) should the Department require the use of a particular test procedure, such test procedure will be specified in Part I of this permit;
 - (2) should the permittee desire to use a test method not approved herein, prior Department approval is required pursuant to paragraph (b) of this section.
- b. Application for approval of test procedures shall be made to the Department's Regional Permit Administrator (see Part I, page 1 for address), and shall contain:
- (1) the name and address of the applicant or the responsible person making the discharge, the DEC permit number and applicable SPDES identification number of the existing or pending permit, name of the permit issuing agency name and telephone number of applicant's contact person,
 - (2) the names of the pollutants or parameters for which an alternate testing procedure is being requested, and the monitoring location(s) at which each testing procedure will be utilized,
 - (3) justification for using test procedures other than those approved in paragraph (a) of this section, and
 - (4) a detailed description of the alternate procedure, together with:
 - (i) references to published studies, if any, of the applicability of the alternate test procedure to the effluent in question
 - (ii) information on known interferences, if any, and

- (5) a comparability study, using both approved and the proposed methods. The study shall consist of 8 replicates of 3 samples from a well mixed waste stream for each outfall if less than 5 outfalls are involved, or from 5 outfalls if 5 or more outfalls are involved. Four (4) replicates from each of the samples must be analyzed using a method approved in paragraph (a) of this section, and four of the replicates of each sample must be analyzed using the proposed method. This results in 24 analyses per outfall up to a maximum of 120 analyses per permit. A statistical analysis of the data must be submitted that shall include, as a minimum:

- (i) calculated statistical mean and standard deviation
- (ii) a test for outliers at the mean ± 3 standard deviations level. Where an outlier is detected, an additional sample must be collected and 8 replicates of the sample must be analyzed as specified above;
- (iii) a plot distribution with frequency, counts and histogram,
- (iv) a test for equality among within sample standard deviation
- (v) a check for equality of pooled within sample variance with an F-Test,
- (vi) a t-Test to determine equality of method means, and

copies of all data generated in the study.

Additional information can be obtained by contacting the Bureau of Technical Services & Research, NYSDEC, 50 Wolf Road, Albany, New York 12233-3502.

11. DISPOSAL SYSTEM OPERATION AND QUALITY CONTROL

11.1 GENERAL

- a. The disposal system shall not receive or be committed to receive wastes beyond its design capacity as to volume and character of wastes treated, nor shall the system be materially altered as to type, degree, or capacity of treatment provided, disposal of treated effluent, or treatment and disposal of separated scum, liquids, solids or combination thereof resulting from the treatment process without written approval of the Department of Environmental Conservation or its designated field office.
- b. The permittee shall, at all times, properly operate and maintain all facilities and systems of treatment and control (or related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes as a minimum, the following: (1) A preventive/corrective maintenance program; (2) A site specific action orientated operation and maintenance manual for machine use, the facility, the operators; (adequate laboratory controls and appropriate quality assurance procedures). The permittee requires the operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

When required under Title 6 of the Official Code of the Rules and Regulations of the State of New York (N.Y.C.R.R. 650), sufficient personnel shall be stationed for operators of sewage treatment works as required therein and additionally the permittee shall be employed to satisfactorily operate and maintain the treatment works.

- c. The permittee shall not discharge any waste into any water body.

11.2 BYPASS

a. Definitions

- (1) "Bypass" means the intentional or unintentional diversion of waste stream(s) around any portion of a treatment facility, for the purpose of treating the effluent to a degree of treatment intended for the bypassed portion of the treatment facility.
- (2) "Severe property damage" means substantial damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which would not reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. Bypass not exceeding limitations:

The permittee may allow any bypass to occur which does not cause effluent limitations to be violated, but only if it also is for essential maintenance, repair or replacement to assure efficient and proper operation. These bypasses are not subject to the provisions of paragraph (c) and (d) of this section, provided that written notice is submitted prior to bypass (if anticipated) or as soon as possible after bypass (if unanticipated), and no public health hazard is created by the bypass

c. Notice:

- (1) Anticipated bypass - If the permittee knows in advance of the need for a bypass, it shall submit prior written notice, at least forty five (45) days before the date of the bypass.
- (2) Unanticipated bypass - The permittee shall submit notice of an unanticipated bypass as required in Section 5, paragraph b of this Part (24 hour notice)

d. Prohibition of bypass

- (1) Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:
 - (i) bypass was unavoidable to prevent loss of life, personal injury, public health hazard, or severe property damage;
 - (ii) there were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal period of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance or if designed and installed backup equipment which could have prevented or mitigated the impact of the bypass is not operating during the bypass; and
 - (iii) the permittee submitted notices as required under paragraph (c) of this section and, excepting emergency conditions, the proposed bypass was accepted by the Department.

11.3 UPSET

a. Definition

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. Effect of an upset

An upset constitutes an affirmative defense to an action brought for noncompliance with such permit effluent limitations if the requirements of paragraph (c) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance is final administrative action subject to judicial review.

c. Conditions necessary for a demonstration of upset

A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operation logs, or other relevant evidence that:

- (1) an upset occurred and that the permittee can identify the cause(s) of the upset;
- (2) the permitted facility was at the time being properly operated; and
- (3) the permittee submitted notice of the upset as required in Section 5, paragraph b of this part (24 hour notice)

- (4) the permittee complied with any remedial measures required under Section 5, paragraph d of this part.

d. Burden of proof:

In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

11.4 SPECIAL CONDITION - DISPOSAL SYSTEMS WITH SEPTIC TANKS

If a septic tank is installed as part of the disposal system, it shall be inspected by the permittee or his agent for scum and sludge accumulation at intervals not to exceed one year's duration, and such accumulation will be removed before the depth of either exceeds one-fourth (1/4) of the liquid depth so that no settleable solids or scum will leave in the septic tank effluent. Such accumulation shall be disposed of in an approved manner.

11.5 SLUDGE DISPOSAL

The storage or disposal of collected screenings, sludges, other solids, or precipitates separated from the permitted discharges and/or intake or supply water by the permittee shall be done in such a manner as to prevent creation of nuisance conditions or entry of such materials into classified waters or their tributaries, and in a manner approved by the Department. Any live fish, shellfish, or other animals collected or trapped as a result of intake water screening or treatment should be returned to their water body habitat. The permittee shall maintain records of disposal on all effluent screenings, sludges and other solids associated with the discharge(s) herein described. The following data shall be compiled and reported to the Department or its designated field office upon request:

- a. the sources of the materials to be disposed of;
- b. the approximate volumes, weights, water content and (if other than sewage sludge) chemical composition;
- c. the method by which they were removed and transported, including the name and permit number of the waste transporter, and
- d. their final disposal locations.

12 CONDITIONS APPLICABLE TO A PUBLICLY OWNED TREATMENT WORKS (POTW)

12.1 GENERAL

- a. All POTWs must provide adequate notice to the Department of the following:
 - (1) any new introduction of pollutants into the POTW from an indirect discharger which would be subject to sections 301 or 305 of the Clean Water Act if it were directly discharging those pollutants; and
 - (2) any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
- (3) For purposes of this paragraph, adequate notice shall include information on:
 - (i) the quality and quantity of effluent introduced into the POTW; and
 - (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.
- b. Dry weather overflows are prohibited. The occurrence of any dry weather overflow constitutes a bypass exceeding limitations as defined in Section 11.2 of this Part and shall be promptly abated and reported to the Department in accord with Section 5 of this Part. The permittee shall inspect all overflow facilities at least twice per year (once each spring and fall) during periods of dry weather flow to ensure they are functioning properly. Records of all inspections shall be maintained for inspection by the Department or its designated representative.

- c. The permittee shall identify all inflow to the tributary system and remove excessive infiltration/inflow to an extent which is economically feasible.
- d. The permittee shall enact, maintain and enforce an up-to-date and effective Sewer Use Ordinance which has been approved by the Department.
- e. New connections to a publicly owned sewer system or a privatized municipal sewer system are prohibited when the permittee is notified by the Department:
 - (1) that the discharge(s) regulated by this permit create(s) or is likely to create a public health or potential public health hazard, a contravention of water quality standards or the impairment of the best use of waters, as determined by the Commissioner; or
 - (2) that the discharge(s) regulated by this permit exceeded the permit limit for a specific parameter, including flow, in four of any six consecutive month periods or exceeded a permit limit by 1.4 (1.4 for toxics) times the permit limit in two of any six consecutive month periods; or
 - (3) that the permittee has failed or is likely to fail to carry out, meet or comply with any requirement of this permit, compliance schedule, order of the Department, judicial order, or consent decree.
- f. The provisions provided for in e. above shall remain in effect until the Permittee can demonstrate to the Department's satisfaction and approval that adequate available capacity exists in the plant and that the facility is in full compliance with all of effluent limitations required by this permit.

12.2 NATIONAL PRETREATMENT STANDARDS: PROHIBITED DISCHARGES

a. General prohibitions:

Pollutants introduced into POTW's by a non domestic source shall not pass through the POTW or interfere with the operation or performance of the works or disposal of sludge. These general prohibitions and the specific prohibitions in paragraph (b) of this section apply to all non-domestic sources introducing pollutants into a POTW whether or not the source is subject to other National Pretreatment Standards or any national, State, or local Pretreatment Requirements.

b. Specific prohibition:

In addition, the following pollutants shall not be introduced into the POTW:

- (1) pollutants which create a fire or explosion hazard in the POTW;
- (2) pollutants which will cause corrosive structural damage to the POTW, but in no case will damage with be lower than 5, unless the works is specifically designed to accommodate such conditions;
- (3) solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW resulting in interference;
- (4) any pollutant, including oxygen demanding pollutants (BOD₅), released in a Discharge at a flow rate and/or pollutant concentration which will cause interference with the POTW;
- (5) heat in amounts which will inhibit biological activity in the POTW, resulting in interference, but in no case heat in such quantities that the temperature at the POTW Treatment Plant exceeds 40°C (104°F) unless the Approval Authority, upon request of the POTW, approves alternate temperature limits.

c. When Specific Limits Must be Developed by a POTW:

- (1) POTW's developing POTW Pretreatment Requirements pursuant to §403.5 shall develop and enforce specific limits to implement the prohibitions listed in §403.5(a) and (b).
- (2) All other POTW's shall, in cases where pollutants contributed by User(s) result in interference or Pass-Through, and such violation is likely to require development and enforce specific effluent limits to Industrial User(s), and all other users, as appropriate, which together with appropriate changes in the POTW Treatment Plant's Facilities or operation, are necessary to ensure renewed and continued compliance with the POTW's SPDES permit or sludge use or disposal practices.

(3) Specific effluent limits shall not be developed and enforced without individual notice to persons or groups who have requested such notice and an opportunity to respond.

d. Local Limits:

Where specific prohibitions or limits on pollutants or pollutant parameters are developed by a POTW in accordance with paragraph (c) above, such limits shall be deemed Pretreatment Standards for the purposes of §307(d) of the Act.

e. EPA and State Enforcement Actions:

If, within 30 days after notice of an Interference or Pass Through violation has been sent by EPA or DEC to the POTW, and to persons or groups who have requested such notice, the POTW fails to commence appropriate enforcement action to correct the violation, EPA and DEC may take appropriate enforcement action.

APPENDIX H-5.2

Memorandum Regarding SPDES Inspection

APPENDIX H-1

Environmental & Regulatory Records

**Memorandum**

TO: Dennis Malopolski
FROM: Bernice Malione
DATE: September 19, 2000
SUBJECT: SPDES INSPECTION – PERMIT NO. NY0006033
COPY TO: A. Burton, E. Monteverde, P. Taylor, L. Zucchi, Y. de los Angeles, M. Kirshner

We have received the official report on the SPDES inspections performed on March 23, 1999 and March 13, 2000 for the World Trade Center. The state inspection resulted in an evaluation of no reported permit limit exceedances for the periods of April 1998 through April 1999 and April 1999 through March 2000. A copy of the reports are enclosed for your records.

Congratulations are in order for you and your staff! The evaluation reflects the effort expended in maintaining the permit requirements and for protecting the waters of New York.

Bernice R. Malione

Supervisor

Permits & Governmental Approvals

Environmental Engineering Unit

APPENDIX H-6

WTC Environmental Programs 1999 Year End Report

- SECTION THREE -

**WORLD TRADE CENTER ENVIRONMENTAL PROGRAMS
1999 YEAR END REPORT**

The attached 1999 Year End Report summarizes the environmental activities within the World Trade Department's Supervising Engineer's Office. The report's Table Of Content is as follows:

Section One: Program Highlights

I. Asbestos Program

- 1) Asbestos Abatement Projects
- 2) World Trade Center Asbestos Disclosure
- 3) Elevator Shaft Assessment
- 4) Preparation of the New World Trade Center Call-in Contract

II. Safety Program

- 1) ABM Engineering Site Safety Program

III. Environmental Program

- 1) Hazardous Waste Management
- 2) Community-right-To-Know Inspections
- 3) Food Establishment Inspection Program
- 4) Indoor Air Quality Program

IV. Management Plans Initiated in 1999

- 1) World Trade Center Hazardous Waste Management Plan
- 2) World Trade Center Compressed Gas Safety Plan

V. Objectives For 2000

VI. Program Evaluation

VII. Workplace Conduct

Section Two: Attachments

The Port Authority of NY & NJ

Memorandum

TO: John Castaldo, Lee Zucchi
FROM: Art Burton, Pete Negron, Phil Taylor
DATE: January 5, 2000

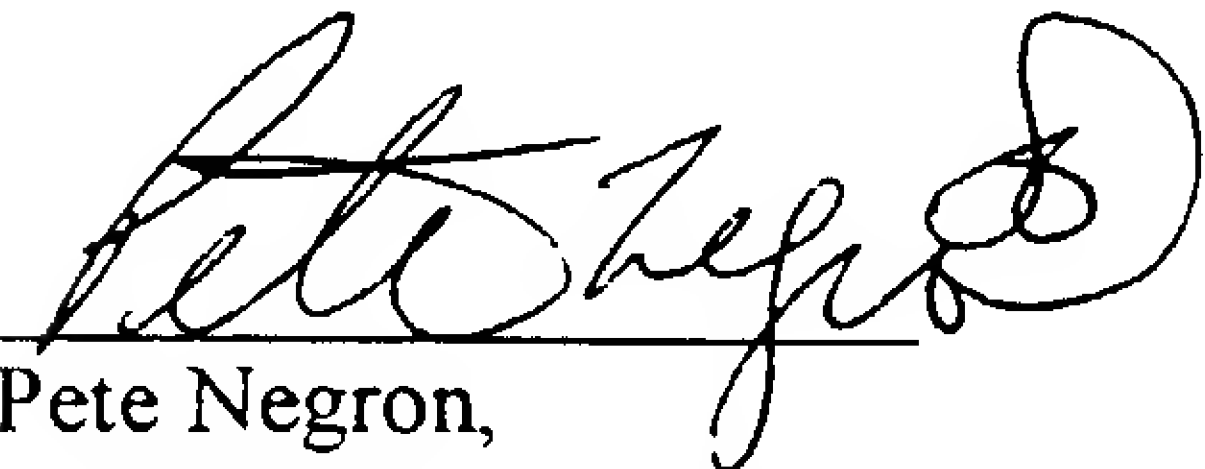
SUBJECT: ENVIRONMENTAL PROGRAMS YEAR END REPORT.

Attached please find the subject report.

Prepared By:



Art Burton,
Assistant Environmental
Programs Coordinator



Pete Negron,
Asbestos Programs Coordinator



Phil Taylor,
Environmental Programs Coordinator

ASBESTOS AND ENVIRONMENTAL PROGRAMS 1999 YEAR END REPORT

TABLE OF CONTENTS

Section One: Program Highlights.

I) Asbestos Program

- 1) Asbestos Abatement Projects
- 2) World Trade Center Asbestos Disclosure
- 3) Elevator Shaft Assessment
- 4) Preparation Of The New World Trade Center Call-in Contract

II) Safety Program

- 1) ABM Engineering Site Safety Program

III) Environmental Program

- 1) Hazardous Waste Management
- 2) Community Right-To-Know Inspections
- 3) Food Establishment Inspection Program
- 4) Indoor Environmental Quality Program

IV) Management Plans Initiated in 1999

- 1) World Trade Center Hazardous Waste Management Plan
- 2) World Trade Center Compressed Gas Safety Plan

V) Objectives For 2000

VI) Program Evaluation

VII) Workplace Conduct

Section Two: Attachments.

- 1999 Asbestos Projects
- World Trade Center Asbestos Disclosure Report
- Elevator Shaft Assessment Report
- World Trade Center Asbestos Abatement Contract Administration
- US EPA Community Right-To-Know Memorandum
- World Trade Center Food Inspection Program
- Hazardous Waste Plan Table of Contents
- World Trade Center Safety Committee

SECTION ONE

- PROGRAM HIGHLIGHTS -

1) ASBESTOS PROGRAM

1) **Asbestos Abatement Projects:**

In 1999, a total of 130 asbestos abatement projects were performed under World Trade Department contract WTC - 115.295. The cost associated with this work was \$2.2 million. In addition, a total of 1,600 cubic yards of asbestos waste was generated.

In summary, 48 vinyl asbestos floor tile projects, 40 fireproofing removals via tent enclosure removal, 17 elevator release responses, 18 surface clean-ups, and 7 Capital projects were performed. The table in Section Two: Attachments – **1999 Asbestos Projects**, describes each project.

2) **World Trade Center Asbestos Disclosure:**

In accordance with the US Department of Labor's Occupational Safety and Health Administration asbestos regulation 29 CFR 1926.1101: Asbestos in Construction, sections (b): Definitions, and (d)(1-5): Multi-employer worksites, as the building owner the World Trade Department is required to disclose the presence of known or presumed asbestos-containing building materials. The memorandum in Section Two: Attachments – **World Trade Center Asbestos Disclosure Report**, was prepared to notify all concerned parties as to the known locations of asbestos-containing building materials.

3) **Elevator Shaft Assessment:**

With the assistance of World Trade Vertical Transportation, a condition survey was performed in 22 high rise elevator shafts to explore the control options (full scale removal, localized removal, operations & maintenance response, management-in-place) available to the World Trade Department.

The report in Section Two: Attachments – **Elevator Shaft Inspections**, details the findings. In summary, it was recommended that the asbestos in elevator shafts 22/23A, 10/11B, and 5/48B be completely removed due to signs of delamination. The asbestos in the remaining elevator shafts was found to be intact, and can be controlled by management-in-place practices, and operations & maintenance responses.

4) Preparation of the New WTC Call-In Contract:

The World Trade Department's Call-in asbestos abatement contract expired on December 3, 1999. Following discussions with the Engineering Department, it was decided that the Environmental Construction Division of the Engineering Department would administer the next contract for the World Trade Department. Working closely with the Engineering Department's Project, Construction, and Design Divisions, a new contract was developed expanding upon the scope of the previous Call-in contract.

Supplementing the Port Authority's technical specification for "Asbestos Abatement and Disposal, this contract includes all of the applicable variances for the World Trade Center; Vinyl Asbestos Floor Tile Removal Utilizing Dry Ice, Tent Enclosure For The Removal of Fireproofing and Thermal System Insulation, and Application of Spray Encasement To Fireproofing.

World Trade Contract 115.300 was awarded to the asbestos abatement firm of Comprehensive Environmental of New York (CENY). Pete Negron shall continue to coordinate abatement project requests for the World Trade Department. The memorandum in Section Two: Attachments – **World Trade Center Asbestos Abatement Projects**, outlines this change in contract administration, and the procedures to be implemented when requesting abatement work was prepared was distributed to World Trade Department and Real Estate management staff.

II) ENVIRONMENTAL PROGRAMS

I) **Hazardous Waste Management:**

In 1999, a total of 51.05 tons of hazardous and non-hazardous waste was generated at the World Trade Center; specifically, 44.87 tons of hazardous waste, and 6.18 tons of non-hazardous. The total cost associated with the disposal of the hazardous and non-hazardous waste consignments was \$49,773; \$41,452.00 for the hazardous waste, and \$8,321.00 for the non-hazardous waste.

By comparison, in 1998, a total of 45.57 tons of hazardous was generated. The decrease in the amount of hazardous waste generated is attributed to more frequent subgrade and MER inspections, and ensuing that contractors working in the World Trade Center remove their unused chemicals instead of abandoning them on the truckdock.

The following tables; **1999 World Trade Center Hazardous Waste Streams, and Methods of Disposal**, summarizes the types and quantity of wastes generated, and how the wastes were disposed of.

1999 WORLD TRADE CENTER WASTE STREAMS

Waste Source	Type of Waste	Waste Class	Quantity	Cost
Re-lamping	Mercury-containing fluorescent lamps	Class 9 – Miscellaneous	10.86 Tons	\$12,641.00
Electric system upgrades	Lead-sulfuric acid Batteries	Class 8 – Corrosive	24.27 Tons	\$19,170.00
Maintenance operations / chemical spill responses	Flammable liquids	Class 3 – Flammable	0.57 Tons	\$ 652.00
Maintenance operations	Waste oil	Class 9 – Miscellaneous	0.94 Tons	\$ 1,075.00
Renovation operations	PCB capacitors	Class 9 – Miscellaneous	8.23 Tons	\$ 7,914.00
Photographic development	Photographic solutions	Class 9 – Miscellaneous	1.84 Tons	}
				}
				}
Food preparation	Cooking oil	Class 9 – Miscellaneous	1.83 Tons	} \$ 8,321.00
				}
				}
Maintenance operations	Anti-freeze solution	Class 9 – Miscellaneous	2.51 Tons	}
				}
		Total	51.05 Tons	\$49,773.00

A Trivia Question:

How many linear feet of fluorescent lamps were disposed of in 1999 ?

Answer: **138,585 linear feet or 26.25 miles of lamps.**

METHOD OF DISPOSAL

Type of Waste	Waste Class	Method of Disposal
Mercury-containing fluorescent lamps	Class 9 – Miscellaneous	Recycled
Lead-sulfuric acid batteries	Class 8 – Corrosive	Component Reclamation
Flammable liquids	Class 3- Flammable	Recycled
Waste oil	Class 9 – Miscellaneous	Incinerated
PCB capacitors	Class 9 – Miscellaneous	Incinerated
Photographic solutions	Class 9 – Miscellaneous	Chemically Treated
Cooking oil	Class 9 – Miscellaneous	Recycled
Anti-freeze	Class 9 – Miscellaneous	Recycled

The methods of disposal listed above are consistent with Port Authority policy and US EPA regulations.

2) **The World Trade Center's Community-Right-To-Know Inspection:**

Chemicals necessary for routine facility operations and maintenance are stored and used at the World Trade Center. Recognizing the hazards facing a community by facilities storing chemicals on site, the US EPA in 1986 enacted the Emergency Planning and Community Right-To-Know Act (CRTK). The CRTK Act requires that all facilities report on, and disclose to the community, 1) the presence of hazardous chemicals stored and used at their facility, and 2) on the releases, both accidental and routine, of such chemicals. Copies of the disclosure are forwarded to the Local Emergency Planning Committee (the NYC Fire Department and the NYC Department of Environmental Protection), and the State Emergency Response Commission (the NYS Department of Environmental Protection).

Since 1986, the Port Authority has complied with the reporting requirements of this regulation. In 1998, the World Trade Center's CRTK report consisted of 170 pages. In the event of an incident involving a location where these chemicals are stored, or an incident which may impact the stored chemicals, the emergency responders will not have time to review a 170 page document.

Therefore, to enhance the effectiveness of this report so that in the event of an incident the emergency responders will know if, and what type(s) of chemicals are involved, this office modified the format of the report as follows:

- Individual binders for 1, 2, 4, and 5 World Trade Center were prepared. An individual binder for the Pump Station was prepared.
- Each chemical storage location within each building was identified and tabbed.
- A material safety data sheet for each chemical was attached to each formal disclosure report.
- Binders were distributed to each Fire Command Desk, World Trade Operations, and Life Safety and Security, and the Port Authority Police Desk.

The memorandum in Section Two: Attachments – **U.S. Environmental Protection Agency Community Right-To-Know Inspections**, details our internal revisions and outlines future modifications to the report.

3) **World Trade Center Food Establishment Inspections:**

The food establishments at the World Trade Center are inspected on a quarterly basis by staff from the Inspection & Safety Division. In accordance with Port Authority procedures and applicable NYC Department of Health regulation, the inspection parameters focus on: food storage, handling, and preparation practices; overall sanitation; establishment maintenance; and pest control. This office participates in the initial and follow-up inspections to ensure that the restaurant operators correct the deficiencies cited on a timely basis. The document in Section Two: Attachments – **World Trade Center Food Establishment Program**, outlines our role.

4) **Indoor Environmental Quality Program:**

When the term “indoor air quality (IAQ) complaint” is used, by meaning alone one is drawn to the conclusion that there is something wrong with the air. However, the quality of the air often times is not the cause of the complaint. Though a contaminated air source or a poorly designed and maintained heating, ventilation, and air conditioning system will lead to IAQ complaints, many other contributory factors need to be examined.

Some of the contributory factors which must be considered during the performance of an IAQ investigation include;

- Newly painted surfaces,
- Construction, demolition, and renovation activities,
- Newly installed or recently cleaned carpets and wall treatments,
- New office furnishings,

- Plants,
- Cooking areas,
- High production photocopying and photographic developing operations,
- Material storage / storage units restricting air flow,
- Sealed or restricted air supply and return grills, and induction units,
- Office space re-configurations.

As can be seen, there can be many localized” factors to IAQ than just “bad” air. Therefore, this office now classifies IAQ complaints as “Indoor Environmental Quality (IEQ)” complaints. By using the term IEQ, our investigations look into the multiple causes of office complaints. We proceed with our investigations with no preconceived assumptions or classifying labels.

Performing a detailed investigation is the key in successfully identifying the cause(s), and/or contributing factors in an IEQ complaint. At the World Trade Center, addressing an IEQ complaint is a multi tier response:

- Tier One: Working with the assigned Tower Maintenance Manager and Property Manager, the complainant is interviewed, and the office inspected.
- Tier Two: As the investigation continues, the Tower Maintenance Manger and the ABM Engineering Services mechanic offer their expertise in the evaluation the building’s ventilation system.
- Tier Three: Based upon the nature of the compliant, environmental, occupational health, and industrial hygiene specialists from the Inspection & Safety Division (I&SD) are called in to collect environmental and personnel exposure air monitoring. A report is prepared describing the results of the testing, and recommendations for corrective action.

The standardization of how an inspection is performed is crucial if collected data is to be meaningful. To accomplish this, we utilize the U.S. Environmental Protection Agency’s, the U.S. Department of Health and Human Service’s, the Public Health Service’s, Centers for Disease Control’s, and National Institute for Occupational Safety and Health’s joint publication “Building Air Quality: A Guide For Building Owners and Facility Managers”.

This manual provides information as to:

- Developing a building profile to assist in preventing indoor air quality problems,
- Pollutant pathways,
- Developing an indoor air quality management plan (in our case, it will be an IEQ Plan),
- Identifying causes, solutions, and control strategies to indoor air quality complaints, and,
- The types of inspection and inventory forms which could be used during an inspection.

II) SAFETY PROGRAM

1) **ABM Engineering Services Safety Plan Review.**

As specified in World Trade Center Contract 799.710: Agreement To Perform Consolidated Electrical, Mechanical & General Maintenance Services, ABM Engineering Services (ABM) is required to submit a copy of their site Safety Program to the World Trade Department for review and acceptance.

In compliance, ABM has submitted for review and comment the following Plans consistent with the development of a Safety Program:

- Permit-Required Confined Space Entry,
- Asbestos Management,
- Hazard Communication,
- Walking / Working Surfaces,
- Materials Handling,
- Personnel Protective Equipment,
- Elimination of Hazardous Energy; Lockout / Tagout

In January, a meeting has been scheduled with ABM, their safety consultant, and this office to:

- Transmit final Safety Plans,
- Discuss what additional Plans are required,
- Discuss ABM employee training schedule,
- Discuss implementation of the U.S. OSHA "Program Evaluation Profile",
- Discuss the implementation of an ABM Safety Committee.

III) MANAGEMENT PLANS INITIATED IN 1999

1) **The World Trade Center Hazardous Waste Management Plan:**

As defined in US EPA regulation 40 CFR Part 262: Standards Applicable to Generators of Hazardous Waste, Section 262.34 – Accumulation Time, the World Trade Center is considered a “large quantity generator” (LQG). A LQG is defined as a facility, which generates more than 2,200 pounds of hazardous waste within a thirty-day period. As described in **Section One: Environmental Programs - Hazardous Waste Management**, the World Trade Center generated 51 tons of hazardous waste in 1999; or 4.25 tons of hazardous waste per month.

As a LQG, the World Trade Center is required by US EPA regulation to have a program in place to manage hazardous waste storage. US EPA programs parameters include:

- Documented inspections of stored wastes,
- Appropriate waste container marking and labeling,
- Appropriately selected waste containers,
- Designated hazardous waste storage location(s),
- Documentation of waste classification for toxicity, corrosivity, reactivity, and flammability.
- Preparation of a spill contingency / emergency response plan,
- Identification of competent person(s).
- Maintain hazardous waste manifests.

To meet these requirements, this office is preparing the “World Trade Center’s Hazardous Waste Management Plan”. Though still in the draft stage, the attached draft in **Section Two: Attachments – Hazardous Waste Plan Table of Contents**, describes the format of the Plan. The Plan should be finalized by the end of the second quarter 2000.

2) **The World Trade Center Compressed Gas Safety Plan:**

A compressed gas cylinder is under extreme pressure. A sudden release of this pressure can result in either vertical or horizontal acceleration, or an explosion. The US Department of Labor’s Occupational Safety and Health Administration (US OSHA), the National Fire Protection Association (NFPA), and the Compressed Gas Association (CGA), require that if compressed gas cylinders are to be stored, transported, and used at a facility, a management plan must be in place.

At the World Trade Center, flammable and non-flammable compressed gases are used in welding and torch cutting operations. The gases typically use in these operations include oxygen, nitrogen, and acetylene. Though not considered as toxic gases, they are none the less dangerous. Oxygen is considered an oxidizer, which means it will contribute to fire by the release of oxygen molecules. Nitrogen is an inerting gas, which means it can displace oxygen from the atmosphere. Acetylene is a flammable gas under all environmental conditions.

Using US OSHA, NFPA, and CGA regulations and guidelines, a management plan is being prepared which will detail where compressed gas cylinders are to be stored, how they are to be transported, how they are to be used, and how they are to be disposed of. This Plan should be finalized by the end of the second quarter 2000.

IV) OBJECTIVES FOR 2000

In addition to ensuring that the daily maintenance and operation activities at the World Trade Center are in compliance with applicable environmental and occupational safety regulations, the following initiatives for 2000 have been established:

1) Compete Hazardous Waste Management Plan

- To be completed by the end of the second quarter.

2) Complete Compressed Gas Plan

- To be completed by the end of the second quarter.

3) Standardize IEQ Form and Complaint Procedures

- To be completed by the end of the second quarter.

4) Chemical Substitution

- Examine the use of alternate, less hazardous chemicals to further minimize our hazardous waste stream.

5) Initiate World Trade Department Safety Committee Meetings

- First meeting should be scheduled during the first quarter. The proposed objectives for the Safety Committee are outlined in an Email in Section Two: Attachments – **The World Trade Department Safety Committee.**

6) Participation on the ABM Engineering Services Safety Committee

- Representatives from this office shall be a member on ABM's Safety Committee.

7) Preparation of a Comprehensive Hazardous Materials Management Plan

- To pull together the World Trade Department's hazardous waste management, hazardous materials incident response, and Community Right-To-Know plans, a comprehensive management plan shall be developed detailing how hazardous chemicals are ordered, inventoried, stored, used, and disposed of at the World Trade Center. A draft Plan is expected by the end of the third quarter.

V) PROGRAM EVALUATION

As with any operation, there is always room for improvement. Having reviewed our operation, improvement is needed in the following areas:

1) Improved Tracking of Spill Responses:

Though our response was in accordance with US OSHA regulation 29 CFR 1910.120: Hazardous Waste Operations and Emergency Response, and the World Trade Center's Hazardous Materials Incident Response Management Plan, we were however deficient in properly documenting each incident. A report shall now be prepared for each materials incident response.

2) Improved Container Labeling:

In accordance with US EPA regulation 40 CFR Part 262: Standards Applicable to Generators of Hazardous Waste, Section 262.31 and 31 – Labeling and Marking, generators of hazardous waste must clearly label and identify the contents of each container in which a hazardous waste is stored. Though we currently mark and label each waste container, there have been instances when container marking was missing or inaccurate. We shall be more diligent to this requirement.

3) Improve Container Packaging:

In accordance with US EPA regulation 40 CFR Part 262: Standards Applicable to Generators of Hazardous Waste, Section 262.30 – Packaging, a generator of hazardous waste must select and properly use an appropriate packaging unit. Though we have not had an incident in which a hazardous waste transporter refused to transport the waste consignment, at times our packaging “could have been better”. We shall be more diligent to this requirement.

4) More Timely Response To “Follow-Up’s” From Manager:

A self explanatory issue. Too often, responses to follow-ups, or information requests in general, are not provided on a timely basis. Customer Service starts with a response.

5) Better Tracking of Overtime and Expenditures:

Getting caught up in “doing the job” is no reason not too better track and control overtime, and monitor the purchasing of equipment and supplies. Procedures have been implemented to better contain overtime costs, and to substantiate the purchasing of equipment and supplies.

VI) WORKPLACE CONDUCT

Consistent with Port Authority policy and procedures, every effort shall be made to maintain a workplace free from all forms of harassment and discrimination.

Supervisory intervention shall be within the guidelines as set forth by the Port Authority in the "Sexual Harassment Prevention & Workplace Behavior Training Program".

SECTION TWO

- ATTACHMENTS -

1999 ASBESTOS PROJECTS

PETE NERGON
ENVIRONMENTAL PROGRAMS COORDINATOR

1999 ASBESTOS PROJECTS
THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY
PHILIP TAYLOR - SUPERVISING ENGINEER

ARTHUR BURTON
ASSISTANT ENVIRONMENTAL COORDINATOR

W.O. #	PROJECT	SCOPE	TOTAL HRS	ABATED S.F.	UNIT HR/S.F.	CARPET S.F.	CARPET COST	TOTAL COST
PAYMENT NO. 1								
253	1 WTC B-2	VAT		3,475	\$4.80			\$ 17,895.60
256	4 WTC 7 th flr	VAT		14,250	\$1.90			\$ 29,010.60
252	1 WTC 54th flr	VAT		22,500	\$1.90	19,000	\$ 5,700.00	\$ 49,665.60
259	1 & 2 WTC MER STP	CLEAN	1,136		\$54.24			\$ 62,832.24
260	1 WTC 53rd flr	VAT		3,200	\$4.80			\$ 16,575.60
196	1 WTC B-1stock	CLEAN	443		\$54.24			\$ 24,001.20
251	5 WTC 10th EMR	CLEAN	40		\$54.24			\$ 2,169.60
PAYMENT NO. 2								
261	2 WTC 34th	VAT		4,600	\$4.80	500	\$ 150.00	\$ 23,445.60
264	4 WTC 3rd	VAT		4,350	\$4.80			\$ 22,095.60
251	1 WTC B-1 K-2 EMR	CLEAN	24		\$54.24			\$ 4,181.76
253	1 WTC B-2	VAT		2,584	\$4.80			\$ 12,403.20
262	2 WTC 89th flr	VAT		34,500	\$1.90			\$ 66,765.60
258	4 WTC B-1	VAT		580	\$6.22			\$ 4,823.20
259	1 & 2 WTC MER STP	CLEAN	2,420		\$54.24			\$ 131,260.80
196	1 WTC stock	ACM		1,660	\$54.24			\$ 90,038.40
267	2 WTC 28th flr	VAT		1,850	\$4.80	1,000	\$ 300.00	\$ 10,543.60
265	1 WTC 83rd flr	VAT		6,286	\$3.05	6,286	\$ 1,885.80	\$ 22,273.70
254	4 WTC 9th flr	VAT		7,200	\$3.05			\$ 23,175.60
EWO 39	4 WTC 3rd flr stair	CLEAN	28		\$54.24			\$ 1,518.72
PAYMENT NO. 3								
268	1 WTC 46th flr	VAT		990	\$6.22	990	\$ 297.00	\$ 7,070.40
273	4 WTC 5 th flr	VAT		4,650	\$4.80			\$ 23,535.60
266	2 WTC 25th flr	VAT		33,500	\$1.90			\$ 64,865.60
274	1 WTC 51th flr	VAT		3,700	\$4.80	850	\$ 255.00	\$ 19,230.60
196	1 WTC B-1 stock	ACM	2,790		\$54.24			\$ 151,302.48
EWO 040	2 WTC 6th flr	CLEAN	24		\$54.24			\$ 1,301.76
EWO 041	2 WTC elev 37 & 38th flr	CLEAN	8		\$54.24			\$ 433.92
112	1 WTC mezz DR RM	ACM	33		\$54.24			\$ 18,209.40
234	1 WTC B-1 lev subs	ACM	94		\$54.24			\$ 14,500.00
271	4 WTC conc	VAT		220	\$6.22			\$ 1,624.00
263	1 WTC core closets	CLEAN	108		\$54.24			\$ 5,857.92

135,640 Φ

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3/1999

PAYMENT NO. 4									
196	1 WTC B-1 stock	ACM	1,310		\$54.24			\$	71,054.40
257	1 WTC B-2 shop	CLEAN	883		\$54.24			\$	48,149.52
269	1 WTC 101st flr	VAT	1,177		\$54.24			\$	65,056.08
270	2 WTC B-4	VAT		7,200	\$3.05			\$	23,175.60
276	1 WTC mezz post	CLEAN	48		\$54.24			\$	2,603.52
278	2 WTC B-6	SPOT	80		\$54.24			\$	4,339.20
279	2 WTC 88th flr	VAT		34,600	\$1.90	6,500	\$ 1,950.00	\$	68,905.60
280	2 WTC 34th flr	VAT		2,225	\$4.80	480	\$ 135.00	\$	10,815.00
283	1 WTC 108th flr	VAT		600	\$6.22			\$	4,347.60
284	1 WTC B-6	VAT		1,600	\$4.80			\$	8,895.60
285	1 WTC mezz DR RM	ACM		310.50	\$54.24			\$	16,977.12
287	1 WTC mezz tank	SPOT	48		\$54.24			\$	2,603.52
288	1 WTC B-1	CLEAN	16		\$54.24			\$	867.84
EWO 042	1 WTC elev 49 & 50	CLEAN	8		\$54.24			\$	433.92
EWO 043	2 WTC 5th flr	CLEAN	16		\$54.24			\$	867.84

PAYMENT NO. 5									
116.097	1 WTC B-1	VAT		30	\$6.22			\$	2,000.60
116.099	1 WTC 22nd	VAT		1,400	\$4.80	900	\$ 270.00	\$	8,025.60
116.096	2 WTC 34th flr	VAT		200	\$6.22			\$	1,379.60
116.094	2 WTC 26th flr	VAT		3,200	\$1.90	2,500	\$ 7,500.00	\$	69,515.60
EWO 050	1 WTC elev 22 & 23	CLEAN	16		\$54.24			\$	867.84
EWO 049	1 WTC elev 19	CLEAN	39		\$54.24			\$	2,115.36
EWO 048	5 WTC 2nd flr	CLEAN	104		\$54.24			\$	5,640.96
116.1	1 WTC 85th flr	VAT		2,800	\$4.80			\$	14,655.60
EWO 057	1 WTC elev 16 & 17	CLEAN	136		\$54.24			\$	7,376.64
116.091	6 WTC B-1 sub	ACM	807.50		\$54.24			\$	62,409.60
293	1 & 2 conc lights	CLEAN			NET			\$	1,721.17

PAYMENT NO. 6									
272	4 WTC 7th flr	VAT		13,690	\$1.90			\$	27,226.60
116.09	2 WTC 53rd flr	VAT		15	\$6.22			\$	2,289.90
293	1 & 2 WTC	CLEAN			\$54.24			\$	3,254.40
EWO 045	1 WTC elev 16 & 17	CLEAN	109		\$54.24			\$	5,912.16
EWO 046	2 WTC elev 33-35	CLEAN	44		\$54.24			\$	2,386.56
EWO 047	1 WTC 18-19	CLEAN	24		\$54.24			\$	1,301.76

re 2 64,745 fl

PETE NERGON
ENVIRONMENTAL PROGRAMS COORDINATOR

1999 ASBESTOS PROJECTS
THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY
PHILIP TAYLOR - SUPERVISING ENGINEER

ARTHUR BURTON
ASSISTANT ENVIRONMENTAL COORDINATOR

PAYMENT NO. 7									
EWO 051	1 WTC elev 16 & 17	CLEAN	136		\$54.24			\$	7,376.64
116.094	2 WTC 26th flr	VAT		32,000	\$1.90	25,000	\$ 7,500.00	\$	69,515.60
116.096	2 WTC 34th flr	VAT		200	\$6.22			\$	1,379.60
116.097	1 WTC B-3	VAT		300	\$6.22			\$	2,001.60
116.099	1 WTC 22nd flr	VAT		1,400	\$4.80	900	\$ 270.00	\$	8,205.60
116.1	1 WTC 85th flr	VAT		2,800	\$4.80			\$	14,655.60
EWO 048	5 WTC 2nd flr	CLEAN		104	\$54.24			\$	5,640.96
EWO 049	1 WTC elev 19th flr	CLEAN		39	\$54.24			\$	2,115.36
116.091	6 WTC B-1 sub	ACM		803	\$54.24			\$	62,409.60
EWO 50	1 WTC elev 22-23	CLEAN		16	\$54.24			\$	867.84
293	1 & 2 WTC conc. Lights	CLEAN			NET			\$	1721.17
PAYMENT NO. 8									
116.102	WTC conc.	VAT		384	\$6.22			\$	3,004.08
116.092	1 WTC 102nd flr	VAT		23,400	\$1.90			\$	45,675.60
116.103	1 WTC B-4	VAT		1,700	\$4.80			\$	9,375.60
116.095	1 WTC 104th flr	VAT		550	\$6.22			\$	4,036.60
245	1 WTC 42nd MER	ACM		466	\$54.25			\$	25,275.84
116.091	6 WTC B-1 sub	ACM		1,677	\$54.25			\$	90,960.48
EWO 052	1 WTC elev 16 & 17	CLEAN		67	\$54.25			\$	3,634.08
PAYMENT NO. 9									
116.105	2 WTC 75th flr	ACM		473	\$54.25			\$	25,655.52
116.11	1 & 2 B-1 dust	DUST		842	\$54.25			\$	45,670.08
116.104	2 WTC 22nd	VAT		1,850	\$4.80			\$	10,095.00
116.108	2 WTC 27th flr	VAT		12,008	\$1.90			\$	24,030.80
116.091	6 WTC B-1 sub	ACM		623.5	\$54.25			\$	46,130.23
116.101	1 WTC B-6	CLEAN		456	\$54.22			\$	24,733.44
PAYMENT NO. 10									
EWO 053	WTC FLOYD	STANDBY		169	\$54.24			\$	9,139.44
116.11	1 & 2 WTC B-1 test	CLEAN		224	\$54.24			\$	12,149.76
116.115	1 WTC 79th flr	VAT		3,690	\$4.80			\$	18,927.60
116.112	2 WTC 75th flr	VAT		430	\$6.22			\$	3,290.20
116.114	1 WTC B-6	CLEAN		74	\$54.24			\$	4,013.76
116.113	1 & 2 WTC catwalk	CLEAN		468	\$54.24			\$	28,384.32
116.107	2 WTC B-2	VAT		1,500	\$4.80			\$	8,415.60

82,080.11

PETE NERGON
ENVIRONMENTAL PROGRAMS COORDINATOR

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116.116	1 WTC 41st MER	ACM	192		\$54.24		\$	10,414.08
PAYMENT NO.11								
116.107	2 WTC B-2 LVL corridor	VAT		1,030	\$4.80		\$	4,944.00
116.122	1 WTC B-1 LVL MER	CLEAN	48		\$54.24		\$	2,603.52
116.119	1 WTC 18th MER	CLEAN	48		\$54.24		\$	2,603.52
116.113	1 & 2 WTC catwalk	CLEAN	708		\$54.24		\$	38,401.92

PAYMENT NO.12								
275	1 WTC 87th flr	DOL FILING					\$	1,215.60
116.093	5 WTC 2nd flr	DOL FILING					\$	1,215.60
116.11	1 WTC 91st flr	DOL FILING					\$	1,215.60
116.117	4 WTC 5 th flr	VAT		35,000	\$1.90		\$	70,427.60
116.12	4 WTC B-1	VAT		1,080	\$4.80		\$	6,399.60
116.123	1 WTC 104th flr	SPOT	27		\$54.24		\$	1,461.48
116.124	1 & 2 WTC freight	VAT		550	\$6.22		\$	4,036.60
116.125	2 WTC 37th flr	DOL FILING					\$	1,215.60
116.126	1 WTC 86th flr	DOL FILING					\$	1,215.60
116.127	5 WTC 5th flr	VAT		13,500	\$1.90		\$	26,865.60

52,050
707K 334,515

WTC ASBESTOS DISCLOSURE

THE PORT AUTHORITY OF NY & NJ

MEMORANDUM

TO: Jerrold Dinkles, Louis Menno, Edwin Monteverde,
Nancy Seliga.
FROM: John Castaldo
DATE: December 21, 1999
SUBJECT: ASBESTOS POSITIVE LOCATIONS IN THE
WORLD TRADE CENTER: UPDATE.
REFERENCE: J. Castaldo to T. Stam, memo dated 10/7/98, 5/4/98 ,
2/12/98, same subject.
COPY: J. Amatuuccio, L. Ardizzone, E. Auerbach, S. Benjamin,
V. Borst, C. Bonacci, I. Chachkes, C. DaCosta,
F. DeMartini, W. Devlin, J. DiSorbo, M. Hurley,
M. Jakubek, U. Mehta, Meyer, E. McGinnley, R. Muessig,
J. Napolitano, P. Negron, R. Pruno, F. Riccardelli,
J. Richardson, C. Semah, E. Strauss, P. Taylor, G. Tabeek,
L. Zucchi, Operations Control Desk, S-4's.

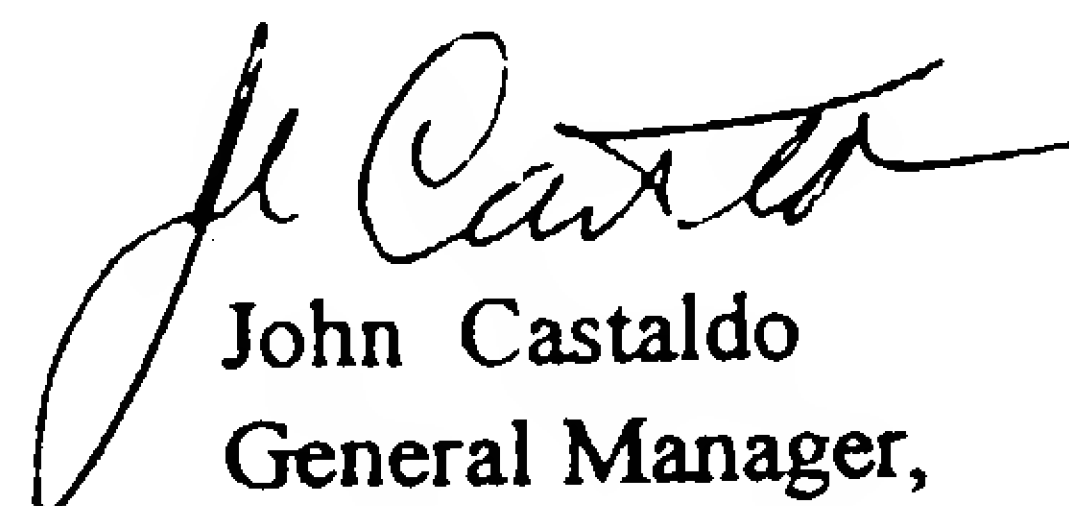
This memorandum is an update to my May, 1998 memorandum wherein I disclosed the known asbestos locations in the World Trade Center.

The S/E quadrant of the 104th in One World Trade Center floor has been abated, and has been removed from the Quadrant Location heading.

The Port Authority has been trying to comply with Industrial Code Rule #56 relative to worker certifications, contractor licensing, and work procedures if asbestos is going to be disturbed or impacted. You are requested to contact this office for the appropriate response action (*facility operations & maintenance activity, or referral to the Engineering Department for abatement*) if asbestos-containing materials may be impacted by work under your jurisdiction.

In compliance with the World Trade Department's asbestos disclosure requirements under the U.S. Occupational Safety and Health Administration asbestos regulation, I am requesting that this information be distributed to all World Trade Department maintenance and construction contractors, tenant contractors, and Engineering Department construction contractors.

Please contact me at 8518, or Pete Negron at 8364 if you have any questions.



John Castaldo
General Manager,
Building Services Management

**Asbestos-Containing Surfacing And Thermal System Insulation Materials Located In
One World Trade Center - Exclusive Of Elevator Shafts**

<u>Full Floor Locations</u>	<u>Quadrant Location</u>	<u>Random Locations On Floor</u>	<u>Subgrades</u>
Lobby Mezzanine 1st, 6th Floors: Core 6th Floor Catwalk 7 / 8 Floor MER 41 / 42 Floor MER 75 / 76 Floor MER 108 / 109 Floor MER		43 / 44 Floor Exhaust Duct 72nd Floor 82nd Floor Core Electric Closets On The 1st - 40th Floors Perimeter Electric Closet On The 30th Floors	B1 Level: Core, North/ West/East Quadrant, B2 Level: Old Locksmith And B6 Level

**Asbestos-Containing Surfacing And Thermal System Insulation Materials Located In
Two World Trade Center - Exclusive Of Elevator Shafts**

<u>Full Floor Locations</u>	<u>Random Locations On Floor</u>	<u>Quadrant Location</u>
6th Floor Catwalk 10th - 13th Floors 41 / 42 Floor MER	Lobby Mezzanine 7 / 8 Floor MER 9th Floor 19th Floor 20th Floor 26th Floor 33rd Floor 71st Floor 75 / 76 Floor MER	S/W, 43rd Floor

**Asbestos-Containing Surfacing And Thermal System Insulation Materials Located In
Four And Five World Trade Center**

There is no asbestos-containing sprayed-on fireproofing in Four and Five World Trade Center.
Thermal system insulation is present in the form of pipe saddles.

**Asbestos-Containing Surfacing And Thermal System Insulation Materials Located On
The Concourse**

There is no asbestos-containing sprayed-on fireproofing in the plenum of the Concourse.
There is thermal system insulation material present.
ACM

**Asbestos-Containing Surfacing And Thermal System Insulation Materials Located On
The B1 Level And The Truckdock**

Asbestos-containing sprayed-on fireproofing and thermal system insulation material is present.

Miscellaneous Asbestos-Containing Materials At The World Trade Center

Base building flooring throughout the facility is vinyl asbestos floor tile (VAT).

ACBM is located behind the convector units at the following locations:

1 WTC; 77, 79, 88, 101, 103 and 105.

2 WTC; 22, 24, 59, 72, 79, 81, 84, 86 and 87.

World Trade Center Elevator Shafts With Asbestos-Containing Insulation Material

One World Trade Center

Two World Trade Center

Shafts	1 - 5:	Elevator Pit to EMR
	8 - 9:	Elevator Pit to EMR
	16 - 21:	Elevator Pit to 32nd Floor
	22 - 23:	Elevator Pit to EMR
	48:	Elevator Pit to EMR
	49:	Elevator Pit to 32nd Floor
	50:	Elevator Pit to 31st Floor
	24 - 29:	Elevator Pit to EMR
	30 - 35:	Elevator Pit to EMR
	36 - 41:	Elevator Pit to EMR
	42 - 47:	Elevator Pit to EMR
	51 - 56:	Elevator Pit to EMR
	57 - 62:	Elevator Pit to EMR
	63 - 68:	Elevator Pit to EMR
	69 - 74:	Elevator Pit to EMR

Shafts	5 & 48:	Elevator Pit to EMR
	10 & 11:	Elevator Pit to EMR
	14 & 15:	Elevator Pit to EMR
	24 - 29:	Elevator Pit to EMR
	30 - 35:	Elevator Pit to EMR
	36 - 41:	Elevator Pit to EMR
	42 - 47:	Elevator Pit to EMR
	51 - 56:	Elevator Pit to EMR
	57 - 62:	Elevator Pit to EMR
	63 - 68:	Elevator Pit to EMR
	69 - 74:	Elevator Pit to EMR

There is no asbestos-containing insulation material in the J and K elevator cars in 1 and 2 WTC.

There is no asbestos-containing insulation material with the elevator shafts in 4 and 5 WTC.

WTC ELEVATOR SHAFT ASSESSMENT

THE PORT AUTHORITY OF NEW YORK & NEW JERSEY

MEMORANDUM

TO: Phil Taylor-Supervising Engineer.

FROM: Pete Negron

DATE: July 21, 1999

SUBJECT: Elevator Shaft Asbestos Assessment.

REFERENCE: Attached E-Mail

COPY TO: J. Amatuccio, D. Bobbitt, A. Burton, J. Castaldo, F. Riccardelli, L. Zucchi.

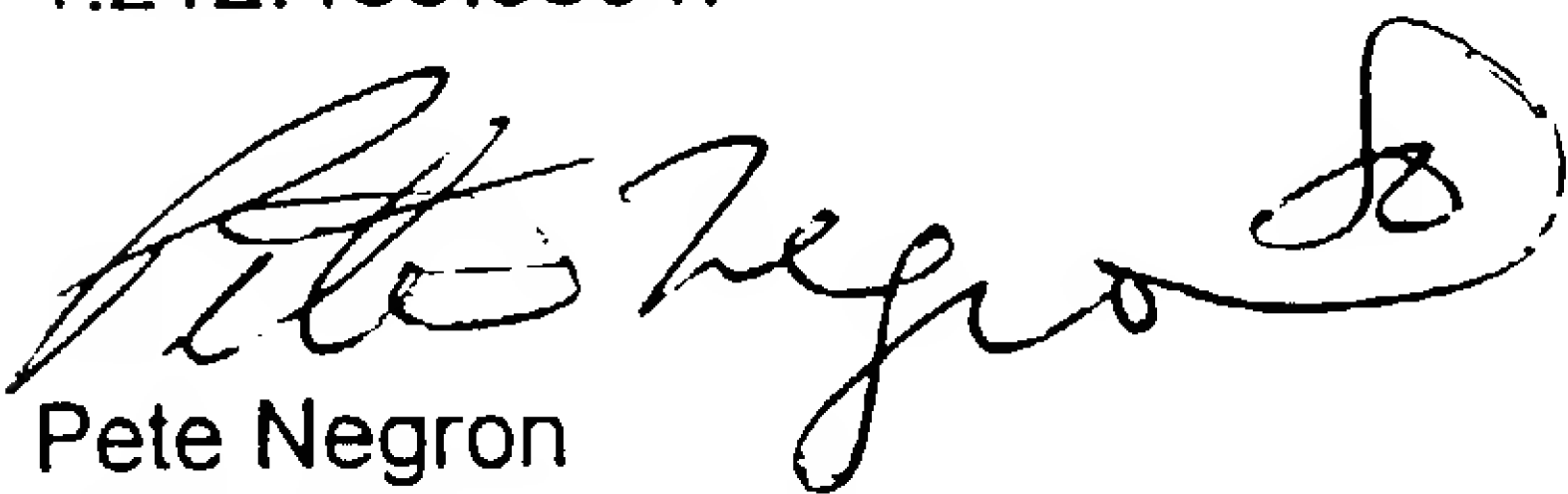
During the week of July 21, 1999, I inspected the elevator shafts to assess the condition of the fireproofing on the steel members.

The attached report includes the shaft number, floor and condition of fireproofing: intact or delaminated, and recommended action.

Floors not listed were inspected and found to be acceptable in that the fireproofing was intact.

In summary, of the 22 shafts inspected, shafts, which require full-scale abatement, are shafts 22/23A, 10B and 48B.

If you require further information regarding this report please contact me at 1.212.435.8364.



Pete Negron
Associate Environmental Analyst
Operations & Maintenance Management
World Trade Center

Attachment

WORLD TRADE CENTER
ELEVATOR SHAFTS ASBESTOS ASSESSMENT

FLOOR	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
25	1A	NO	YES	24 S.F.	SEAL EDGES
26	1A	NO	YES	12 S.F.	SEAL EDGES
27	1A	NO	YES	30 S.F.	SEAL EDGES
28	1A	NO	YES	12 S.F.	SEAL EDGES
29	1A	NO	YES	48 S.F.	SEAL EDGES
SPRAY-ON MATERIAL					

FLOOR	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
9	2A	NO	YES	24 S.F.	SEAL EDGES
27	2A	NO	YES	4 S.F.	SEAL EDGES
28	2A	NO	YES	4 S.F.	SEAL EDGES
29	2A	NO	YES	4 S.F.	SEAL EDGES
30	2A	NO	YES	24 S.F.	SEAL EDGES
31	2A	NO	YES	24 S.F.	SEAL EDGES
34	2A	NO	YES	36 S.F.	SEAL EDGES
38	2A	NO	YES	6 S.F.	SEAL EDGES
SPRAY-ON MATERIAL					

2A

FLOOR	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
310	3A	NO	YES	72 S.F.	SEAL EDGES
5	3A	NO	YES	34 S.F.	SEAL EDGES
8	3A	NO	YES	48 S.F.	SEAL EDGES
9	3A	NO	YES	48 S.F.	SEAL EDGES
16	3A	NO	YES	30 S.F.	SEAL EDGES
17	3A	NO	YES	48 S.F.	SEAL EDGES
18	3A	NO	YES	48 S.F.	SEAL EDGES
19	3A	NO	YES	72 S.F.	SEAL EDGES
28	3A	NO	YES	48 S.F.	SEAL EDGES
34	3A	NO	YES	72 S.F.	SEAL EDGES
40	3A	NO	YES	6 S.F.	SEAL EDGES
SPRAYED-ON MATERIAL					

FLOOR	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
ALL	4A	YES	NO	NONR	NONE
CEMENTITIOUS MATERIAL					

FLOOR	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
ALL	5A	YES	NO	NONE	NONE
ALL	48A	YES	NO	NONE	NONE
CEMENTITIOUS MATERIAL					

Note: Delamination is fireproofing whether sprayed or troweled no longer present on the steel members.

**WORLD TRADE CENTER
ELEVATOR SHAFTS ASBESTOS ASSESSMENT**

FLOOR	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
22	8A	NO	YES	72 S.F.	SEAL EDGES
33	8A	NO	YES	48 S.F.	SEAL EDGES
36	8A	NO	YES	4 S.F.	SEAL EDGES
38	8A	NO	YES	48 S.F.	SEAL EDGES
39	8A	NO	YES	48 S.F.	SEAL EDGES
SPRAY-ON MATERIAL					

FLOOR	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
7	9A	NO	YES	2 S.F.	SEAL EDGES
13	9A	NO	YES	2 S.F.	SEAL EDGES
24	9A	NO	YES	3 S.F.	SEAL EDGES
31	9A	NO	YES	4 S.F.	SEAL EDGES
34	9A	NO	YES	6 S.F.	SEAL EDGES
36	9A	NO	YES	6 S.F.	SEAL EDGES
39	9A	NO	YES	48 S.F.	SEAL EDGES
41	9A	NO	YES	48 S.F.	SEAL EDGES
43	9A	NO	YES	48 S.F.	SEAL EDGES
SPRAYED-ON MATERIAL					

FLOOR	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
9	16A	NO	YES	24 S.F.	SEAL EDGES
25	16A	NO	YES	18 S.F.	SEAL EDGES
26	16A	NO	YES	28 S.F.	SEAL EDGES
27	16A	NO	YES	48 S.F.	SEAL EDGES
28	16A	NO	YES	24 S.F.	SEAL EDGES
CEMENTITIOUS MATERIAL					

FLOORS	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
ALL	17A	YES	NO	NO	NONE

FLOORS	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
ALL	18A	X	NO	NONE	NONE

Note: Delamination is fireproofing whether sprayed or troweled no longer present on the steel members.

WORLD TRADE CENTER
ELEVATOR SHAFTS ASBESTOS ASSESSMENT

FLOOR	SHAFT 1 WTC	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
8	19A	NO	YES	16 S.F.	SEAL EDGES
10	19A	NO	YES	24 S.F.	SEAL EDGES
11	19A	NO	YES	24 S.F.	SEAL EDGES
19	19A	NO	YES	48 S.F.	SEAL EDGES
25	19A	NO	YES	48 S.F.	SEAL EDGES
26	19A	NO	YES	48 S.F.	SEAL EDGES
28	19A	NO	YES	24 S.F.	SEAL EDGES
30	19A	NO	YES	24 S.F.	SEAL EDGES
32	19A	NO	YES	2 S.F.	SEAL EDGES
CEMENTITIOUS MATERIAL					

FLOOR	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
8	20A	NO	YES	12 S.F.	SEAL EDGES
10	20A	NO	YES	3 S.F.	SEAL EDGES
22	20A	NO	YES	3 S.F.	SEAL EDGES
23	20A	NO	YES	3 S.F.	SEAL EDGES
25	20A	NO	YES	36 S.F.	SEAL EDGES
26	20A	NO	YES	34 S.F.	SEAL EDGES
27	20A	NO	YES	26 S.F.	SEAL EDGES
28	20A	NO	YES	30 S.F.	SEAL EDGES
29	20A	NO	YES	28 S.F.	SEAL EDGES
SPRAYED-ON MATERIAL					

FLOOR	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
310	21A	NO	YES	24 S.F.	SEAL EDGES
2	21A	NO	YES	24 S.F.	SEAL EDGES
3	21A	NO	YES	24 S.F.	SEAL EDGES
9	21A	NO	YES	24 S.F.	SEAL EDGES
23	21A	NO	YES	24 S.F.	SEAL EDGES
29	21A	NO	YES	48 S.F.	SEAL EDGES
32	21A	NO	YES	6 S.F.	SEAL EDGES
SPRAYED-ON MATERIAL					

Note: Delamination is fireproofing whether sprayed or troweled no longer present on the steel members.

WORLD TRADE CENTER
ELEVATOR SHAFTS ASBESTOS ASSESSMENT

FLOOR	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
3	22A	NO	YES	4 S.F.	SEAL EDGES
4	22A	NO	YES	4 S.F.	SEAL EDGES
5	22A	NO	YES	4 S.F.	SEAL EDGES
6	22A	NO	YES	4 S.F.	SEAL EDGES
7	22A	NO	YES	4 S.F.	SEAL EDGES
8	22A	NO	YES	4 S.F.	SEAL EDGES
9	22A	NO	YES	4 S.F.	SEAL EDGES
10	22A	NO	YES	4 S.F.	SEAL EDGES
11	22A	NO	YES	4 S.F.	SEAL EDGES
12	22A	NO	YES	4 S.F.	SEAL EDGES
13	22A	NO	YES	4 S.F.	SEAL EDGES
14	22A	NO	YES	6 S.F.	SEAL EDGES
15	22A	NO	YES	4 S.F.	SEAL EDGES
16	22A	NO	YES	12 S.F.	SEAL EDGES
18	22A	NO	YES	6 S.F.	SEAL EDGES
19	22A	NO	YES	6 S.F.	SEAL EDGES
20	22A	NO	YES	6 S.F.	SEAL EDGES
21	22A	NO	YES	6 S.F.	SEAL EDGES
22	22A	NO	YES	6 S.F.	SEAL EDGES
23	22A	NO	YES	6 S.F.	SEAL EDGES
24	22A	NO	YES	6 S.F.	SEAL EDGES
25	22A	NO	YES	6 S.F.	SEAL EDGES
26	22A	NO	YES	8 S.F.	SEAL EDGES
27	22A	NO	YES	6 S.F.	SEAL EDGES
28	22A	NO	YES	48 S.F.	SEAL EDGES
29	22A	NO	YES	6 S.F.	SEAL EDGES
30	22A	NO	YES	6 S.F.	SEAL EDGES
31	22A	NO	YES	6 S.F.	SEAL EDGES
32	22A	NO	YES	6 S.F.	SEAL EDGES
33	22A	NO	YES	6 S.F.	SEAL EDGES
34	22A	NO	YES	6 S.F.	SEAL EDGES
35	22A	NO	YES	4 S.F.	SEAL EDGES
36	22A	NO	YES	8 S.F.	SEAL EDGES
37	22A	NO	YES	6 S.F.	SEAL EDGES
38	22A	NO	YES	6 S.F.	SEAL EDGES
39	22A	NO	YES	24 S.F.	SEAL EDGES
40	22A	NO	YES	8 S.F.	SEAL EDGES
41	22A	NO	YES	8 S.F.	SEAL EDGES
42	22A	NO	YES	8 S.F.	SEAL EDGES
43	22A	NO	YES	8 S.F.	SEAL EDGES
44	22A	NO	YES	8 S.F.	SEAL EDGES
45	22A	NO	YES	8 S.F.	SEAL EDGES
46	22A	NO	YES	8 S.F.	SEAL EDGES
47	22A	NO	YES	8 S.F.	SEAL EDGES
48	22A	NO	YES	2 S.F.	SEAL EDGES
49	22A	NO	YES	6 S.F.	SEAL EDGES
50	22A	NO	YES	2 S.F.	SEAL EDGES
51	22A	NO	YES	4 S.F.	SEAL EDGES
52	22A	NO	YES	4 S.F.	SEAL EDGES
54	22A	NO	YES	4 S.F.	SEAL EDGES
55	22A	NO	YES	2 S.F.	SEAL EDGES
56	22A	NO	YES	48 S.F.	SEAL EDGES
58	22A	NO	YES	3 S.F.	SEAL EDGES
62	22A	NO	YES	2 S.F.	SEAL EDGES
64	22A	NO	YES	2 S.F.	SEAL EDGES
67	22A	NO	YES	2 S.F.	SEAL EDGES

Note: Delamination is fireproofing whether sprayed or troweled no longer present on the steel members.

WORLD TRADE CENTER
ELEVATOR SHAFTS ASBESTOS ASSESSMENT

FLOOR	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
70	22A	NO	YES	3 S.F.	SEAL EDGES
73	22A	NO	YES	2 S.F.	SEAL EDGES
78	22A	NO	YES	2 S.F.	SEAL EDGES
SPRAYED-ON MATERIAL		ABATEMENT OF SHAFT IS RECOMMENDED			

FLOOR	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
16	23A	NO	YES	2 S.F.	SEAL EDGES
17	23A	NO	YES	2 S.F.	SEAL EDGES
18	23A	NO	YES	2 S.F.	SEAL EDGES
19	23A	NO	YES	2 S.F.	SEAL EDGES
20	23A	NO	YES	2 S.F.	SEAL EDGES
21	23A	NO	YES	2 S.F.	SEAL EDGES
22	23A	NO	YES	2 S.F.	SEAL EDGES
23	23A	NO	YES	2 S.F.	SEAL EDGES
24	23A	NO	YES	2 S.F.	SEAL EDGES
25	23A	NO	YES	2 S.F.	SEAL EDGES
26	23A	NO	YES	2 S.F.	SEAL EDGES
27	23A	NO	YES	2 S.F.	SEAL EDGES
28	23A	NO	YES	2 S.F.	SEAL EDGES
29	23A	NO	YES	2 S.F.	SEAL EDGES
30	23A	NO	YES	2 S.F.	SEAL EDGES
31	23A	NO	YES	2 S.F.	SEAL EDGES
32	23A	NO	YES	2 S.F.	SEAL EDGES
33	23A	NO	YES	2 S.F.	SEAL EDGES
34	23A	NO	YES	2 S.F.	SEAL EDGES
35	23A	NO	YES	2 S.F.	SEAL EDGES
36	23A	NO	YES	2 S.F.	SEAL EDGES
37	23A	NO	YES	2 S.F.	SEAL EDGES
73	23A	NO	YES	1 S.F.	SEAL EDGES
SPRAYED-ON MATERIAL		ABATEMENT OF SHAFT IS RECOMMENDED			

Note: Delamination is fireproofing whether sprayed or troweled no longer present on the steel members.

WORLD TRADE CENTER
ELEVATOR SHAFTS ASBESTOS ASSESSMENT

FLOOR	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
3	10B	NO	YES	6 S.F.	SEAL EDGES
4	10B	NO	YES	6 S.F.	SEAL EDGES
7	10B	NO	YES	8 S.F.	SEAL EDGES
12	10B	NO	YES	1 S.F.	SEAL EDGES
15	10B	NO	YES	2 S.F.	SEAL EDGES
19	10B	NO	YES	20 S.F.	SEAL EDGES
20	10B	NO	YES	15 S.F.	SEAL EDGES
21	10B	NO	YES	26 S.F.	SEAL EDGES
22	10B	NO	YES	28 S.F.	SEAL EDGES
23	10B	NO	YES	15 S.F.	SEAL EDGES
25	10B	NO	YES	48 S.F.	SEAL EDGES
28	10B	NO	YES	4 S.F.	SEAL EDGES
29	10B	NO	YES	2 S.F.	SEAL EDGES
31	10B	NO	YES	2 S.F.	SEAL EDGES
34	10B	NO	YES	48 S.F.	SEAL EDGES
35	10B	NO	YES	48 S.F.	SEAL EDGES
36	10B	NO	YES	34 S.F.	SEAL EDGES
37	10B	NO	YES	24 S.F.	SEAL EDGES
39	10B	NO	YES	48 S.F.	SEAL EDGES
40	10B	NO	YES	48 S.F.	SEAL EDGES
SPRAYED-ON MATERIAL			ABATEMENT OF SHAFT IS RECOMMENDED		

FLOOR	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
5	11B	NO	YES	1 S.F.	SEAL EDGES
12	11B	NO	YES	1 S.F.	SEAL EDGES
19	11B	NO	YES	2 S.F.	SEAL EDGES
26	11B	NO	YES	2 S.F.	SEAL EDGES
31	11B	NO	YES	48 S.F.	SEAL EDGES
33	11B	NO	YES	2 S.F.	SEAL EDGES
40	11B	NO	YES	2 S.F.	SEAL EDGES
SPRAYED-ON MATERIAL					

FLOOR	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
ALL	5B	YES	NO	NONE	NONE
ALL	48B	NO	YES	...	ABATEMENT
48B SHAFT-SPRAYED-ON FIREPROOFING					
... 1' - FOOT STRIP ALONG LENGTH OF COLUMN MISSING.					

WORLD TRADE CENTER
ELEVATOR SHAFTS ASBESTOS ASSESSMENT

FLOOR	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
3	14B	NO	YES	2 S.F.	SEAL EDGES
4	14B	NO	YES	2 S.F.	SEAL EDGES
8	14B	NO	YES	1 S.F.	SEAL EDGES
9	14B	NO	YES	1 S.F.	SEAL EDGES
10	14B	NO	YES	1 S.F.	SEAL EDGES
11	14B	NO	YES	1 S.F.	SEAL EDGES
12	14B	NO	YES	1 S.F.	SEAL EDGES
13	14B	NO	YES	1 S.F.	SEAL EDGES
14	14B	NO	YES	1 S.F.	SEAL EDGES
15	14B	NO	YES	1 S.F.	SEAL EDGES
16	14B	NO	YES	1 S.F.	SEAL EDGES
17	14B	NO	YES	1 S.F.	SEAL EDGES
18	14B	NO	YES	1 S.F.	SEAL EDGES
23	14B	NO	YES	1 S.F.	SEAL EDGES
24	14B	NO	YES	1 S.F.	SEAL EDGES
25	14B	NO	YES	1 S.F.	SEAL EDGES
26	14B	NO	YES	1 S.F.	SEAL EDGES
27	14B	NO	YES	1 S.F.	SEAL EDGES
28	14B	NO	YES	1 S.F.	SEAL EDGES
SPRAYED-ON MATERIAL					

FLOOR	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
310	15B	NO	YES	4 S.F.	SEAL EDGES
3	15B	NO	YES	2 S.F.	SEAL EDGES
4	15B	NO	YES	4 S.F.	SEAL EDGES
22	15B	NO	YES	1 S.F.	SEAL EDGES
25	15B	NO	YES	8 S.F.	SEAL EDGES
SPRAYED-ON MATERIAL					

Note: Delamination is fireproofing whether sprayed or troweled no longer present on the steel members.

WTC ASBESTOS CONTRACT ADMINISTRATION

THE PORT AUTHORITY OF NY & NJ**MEMORANDUM**

TO: C. Bonacci, F. DeMartini, G. Meyer, T. Lynch, L. Menno,
E. Monteverde, R. Muessig, K. Piatt, N. Seliga, T. Sheehan
FROM: Leandro Zucchi
DATE: December 13, 1999
SUBJECT: WORLD TRADE CENTER ASBESTOS ABATEMENT PROJECTS.

COPY TO: L. Ardizzone, J. Castaldo, R. Benacchio, W. Devlin, W. Hamann,
D. Karpiloff, T. Kobel, P. Negron, F. Riccardelli, J. Richardson, H. Ret,
E. Strauss, P. Taylor, F. Varriano

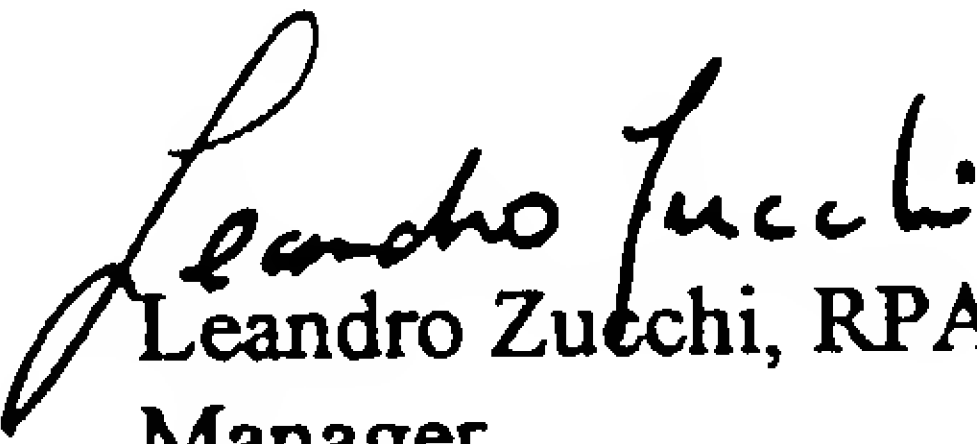
As you may already know, the World Trade Department's Call-in asbestos abatement contract with Asbestos Containment Services Incorporated (ASCI) expired on December 3, 1999. The new World Trade Center Call-in asbestos abatement contract, WTC 115.300, will be administered by Environmental Construction Division of the Engineering Department. The new contractor is Comprehensive Environmental of New York (CENY).

In order to ensure a smooth transition we have established the following guidelines:

1. Requests for asbestos surveys, bulk sampling, and air sampling should be submitted to Pete Negron. Pete will investigate and respond accordingly.
2. Abatement projects in support of tenant lease requirements and negotiations should be addressed as follows:
 - Requests for abatement work should be submitted in writing to Pete Negron for transmittal to the Engineering Department.
 - To expedite the process, each project request should include:
 - A site drawing indicating the building, floor, work site boundary, and suite number;
 - A scope of work;
 - A demolition and renovation drawing and schedule;
 - Time allocated (start and completion dates) for asbestos abatement;
 - A charge code;
 - Contact person to arrange access;
 - Pete Negron will coordinate the work through the Engineering Department and keep you informed of its progress.

Please note that experience has shown that vinyl asbestos floor tile (VAT) projects up to 10,000 square feet requires five (5) days to perform the abatement; from 10,000 to 30,000 square feet requires ten (10) days; and full floors require fifteen (15) days. In addition to the time required to complete a VAT removal project, fifteen (15) days advanced notice is required to: (1) collect the required bulk samples; (2) notify tenants on, above and below the abatement floor of the project; (3) notify the regulatory agencies, and (4) design the project. Therefore, we recommend that you consider these factors prior to establishing your schedule.

Should you have any questions, please feel free to contact Pete Negron or me at 435-8364 or 435-5798 respectively. Meanwhile, I thank you for your attention to this matter.


Leandro Zucchi, RPA
Manager
Operations & Maint. Mgmt.

/lb

US EPA COMMUNITY RIGHT-TO-KNOW INSPECTIONS

TO: Louis Menno, Nancy Seliga, Ted Stam, Capt. A. Whitaker
FROM: Phil Taylor
DATE: September 3, 1999
SUBJECT: U.S. Environmental Protection Agency Community-Right-To-Know Inspections.
COPY: L. Ardizzone, J. Barbella, J. Bonczek, A. Burton, J. Castaldo, T. Degnan, W. Devlin, T. Falabella, K. Grouzalis, W. Hamann, B. Hutchinson, M. Hurley, D. Karpiloff, D. Malopolski, P. Negron, E. Strauss, L. Zucchi

The intent of this memorandum is to outline the reporting requirements of the U.S. Environmental Protection Agency's Community-Right-To-Know regulation, and to describe how the reports were modified for emergency response preparedness at the World Trade Center. The information is provided in three sections; Section One reviews the history of environmental regulation, Section Two outlines the Community-Right-To-Know regulation, and Section Three describes how the reports were modified for use at the World Trade Center.

History of Environmental Regulation

The first "environmental" regulation was the River and Harbors Act of 1899. This regulation was enacted to control the amount of floating debris which could interfere with maritime traffic. The aspect of "chemical" pollution was not a consideration.

Following World War II, the United States experienced many social, economic, and industrial changes. With industrial diversity came a proliferation in the formulation and use of chemicals. This proliferation, coupled with the uncontrolled release of their end-products (pollution) into the environment slowly began to draw the public's attention. The public became more aware about the ecological effects of pollution, as well as the adverse impact of chemicals and pollution on human health. This awareness can best be illustrated in Rachel Carson's book entitled "Silent Spring". This book, published in 1962, described the impact of DDT use on the environment. The environmental movement was underway.

During the 1970s and early 1980s, a series of environmental laws were passed which established programs to address the pollutants released into the environment: the Clean Water Act (CWA), the Clean Air Act (CAA), the Comprehensive Environmental Response, Compensation, and Liabilities Act (CERCLA), and the Resource Conservation and Recovery Act (RCRA). Though there was a heightened concern about protecting the environment, the mind set was that if you didn't see smoke in the air, oil slicks on the water, or half-buried fifty-five gallon drums, no threat existed. This changed in 1984.

On December 4, 1984, a cloud of methyl isocyanate gas, an extremely toxic chemical, escaped from a Union Carbide chemical plant in Bhopal, India. The cause of the release was attributed to a chemical manufacturing process failure. More than 2,500 people lost their lives and tens of thousand more were injured; some with long term permanent disabilities. Unfortunately, the attitude was "something like that can't happen here"; but it did. A similar incident occurred in West Virginia in 1985 when a chemical manufacturing process failure caused the release of aldicarb oxime; another extremely hazardous chemical.

As a result of these catastrophic environmental accidents, the U.S. Environmental Protection Agency (EPA) established the voluntary Chemical Emergency Preparedness Program (CEPP). The intent of the CEPP was to improve the planning and response capabilities at the state and local level. Concurrent with the U.S. EPA's efforts, the Chemical Manufacturers Association (CMA), an industry group, established a voluntary program called Community Awareness and Emergency Response (CAER). The intent of CAER was to encourage a closer relationship between facilities where chemicals are stored and used, and their surrounding community.

To formally address the risks posed by the presence of facility stored chemicals in our communities, the U.S. EPA initiated rule making hearings to establish a framework for emergency planning and responses to chemical releases at the state and local level. The Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA), also known as Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) was enacted. Related to EPCRA, on February 24, 1992, the U.S. Occupational Safety and Health Administration issued their final rule on chemical process safety; 29 CFR 1910.119 – Process Safety Management.

The Community-Right-To-Know Regulation

SARA Title III requires that all facilities report on, and disclose to the community, 1) the presence of hazardous chemicals stored and used at their facility, and 2) on the releases, both accidental and routine, of such chemicals. These disclosure documents are used by the state and local emergency response entities, such as police and fire departments, emergency response teams, emergency management offices, and hospitals. Many of the earlier voluntary programs under CEPP and CAER now became mandatory under SARA Title III.

The Emergency Planning and Community Right-to-Know Act contains four major provisions: I) Planning for Chemical Emergencies, II) Emergency Notification of Chemical Accidents and Releases, III) Reporting of Hazardous Chemical Inventories, and IV) Toxic Chemical Release Reporting. Provisions I, II, and III are described below:

- I. The Planing for Chemical Emergencies provision is designed to help a community prepare for, and respond to, emergencies involving hazardous substances. Every community in the United States must be part of a Comprehensive State Plan.
- II. For the Emergency Notification of Chemical Accidents and Releases, a facility must immediately notify the community Local Emergency Planning Committee (LEPC) and State Emergency Response Commission (SERC) of a chemical release exceeding a predetermined amount. It also requires notification of the release to the National Response Center (NRC), which alerts the federal responders.
- III. The Reporting of Hazardous Chemical Inventories is documented in one of two different ways:
 1. The first is through the preparation and distribution of Material Safety Data Sheets (MSDS), which contain information on a product's chemical and physical properties and health effects. MSDS must be available to all workers so that they know about the chemical hazards they are exposed to, and the precautions for their safe handling.
 2. The second way that companies must report on hazardous chemicals is by submitting annual inventories to the LEPC, the SERC, and the local fire department. The law includes a "Two Tier" approach to inventory reporting.

Under Tier I, a facility must report the amounts, and general location of chemicals within certain hazard categories. For example, a Tier I report might say that a facility stores 10,000 pounds of a substance that cause chronic health effects.

A Tier II report contains basically the same information, but it must name the specific chemical. A Tier II report might say that the facility has 500 pounds of benzene, and it would indicate the physical and health hazards associated with benzene.

Congress (through EPRCA) gave companies the flexibility to choose whether to file a Tier I or Tier II report, unless a state or local government requires Tier II reporting. The U.S. EPA believes however that Tier II reporting provides emergency planners and responders, and communities with more useful information, and is encouraging all facilities to submit Tier II reports. Since EPRCA's enactment, the Port Authority has complied with this regulation by preparing the Tier II report for each location where chemicals are stored at each facility.

Report Modification For Emergency Preparedness Use At The World Trade Center

At the World Trade Center, the environmental consultant firm of Killam Associates has performed the annual Community-Right-To-Know inspections. All Port Authority areas (workshops, storerooms, storage areas, and office spaces) where chemical products are known to be stored were inspected, and the products inventoried. Killam Associates completed the Tier II forms, obtained the required MSDS from the chemical manufactures, and forwarded copies of the report to the NYC Fire Department, the NYC Department of Environmental Protection (LEPC), and the NYS Department of Environmental Conservation (SERC).

The WTC's Community-Right-To-Know report consists of 170 Tier II reports; this is exclusive of the required MSDS attachments. In the event of an incident involving a location where these chemicals are stored, or an incident which may impact the stored chemicals, the emergency responders will not have time to review a 170 page plus document.

Therefore, to enhance the effectiveness of this report so that in the event of an incident the emergency responders will know if, and what type(s) of chemicals are involved, this office has modified the format of the report sent to the regulatory agencies as follows:

- I. The Community-Right-To-Know report has been separated into five binders: One, Two, Four, and Five WTC, and the Pump Station
- II. Chemical storage locations within each building are identified and tabbed.
- III. A MSDS for each chemical product is attached to each Tier II report. Where a MSDS was not available, the National Fire Protection Association ratings were used.

The following is a summary of the locations in the WTC where chemicals are stored:

1 WTC	2 WTC	4 WTC	5 WTC	Pump Station
B6 "J" Area B6 MER B6 "J" Area/Welding B5 "J" Area B5 Chiller Plant B4 Sheet Metal Shop B4 Chemical Room B4 Pump Shop B4 Electrical Shop B4 Motor Shop B2 Slurry Wall Shop B2 Paint Shop B1 Main Stock Room B1 Equipment Stock Room 62 nd floor PA Medical 86 th floor PA Graphic	B4 ACE Elev. MOD S B2 Rag Room B1 ABM Main Stockroom B1 ACE Warehouse 4 th floor ABM Storage Area 37 th floor Sign Shop	B1 Mechanical Shop B1 Mechanical Storage Room 3 rd floor Formica Shop 3 rd floor Carpentry 3 rd floor Paint Storage	B1 Supply Room	

Having the WTC's Community-Right-To-Know report separated into individual buildings, and then further sub-divided by each storage location creates a document which can be quickly referenced in the event of an emergency.

These binders, ready for release by mid-September, and shall be distributed as follows:

- Each Fire Command Desk in One, Two, Four, and Five WTC shall receive a binder for that building. These binders shall be delivered to Mike Hurley.
- The Life Safety & Security office shall receive binders for 1, 2, 4, and 5 WTC, and the Pump Station. These binders shall be delivered to Mike Hurley.
- The PA Police Desk shall receive binders for 1, 2, 4, and 5 WTC, and the Pump Station. These binders shall be delivered to Capt. A. Whitaker.
- The WT Operations office shall receive two binders each (one for the office and the second for the 77 Desk) for 1, 2, 4, and 5 WTC. These binders shall be delivered to Ed Strauss.
- Ken Grouzalis shall receive the binders for 1, 2, 4, and 5 WTC.
- An additional binder shall be maintained in my office.

In addition to the master binders described above, each workshop, storeroom, storage area, and office space where chemicals were inventoried shall be provided with the Tier II report(s) and MSDS(s) specifically for the products stored at that location. These specific storage area reports shall be delivered to a WTD or PA supervisor so that the report can be forwarded to the appropriate contractor or staff member.

Each report shall have attached a copy of this memorandum. If storage areas have been re-located, please let me know so that we can make the necessary revisions.

To further enhance these modified reports, we plan on making the following revisions in the 2000 Community-Right-To-Know inspection binders:

- I. A site drawing highlighting the storage location(s) on the floor shall be included. For emergency responder identification, the National Fire Protection Association hazard recognition system NFPA 704 – “Identification of the Hazards of Materials for Emergency Response” shall be noted on the drawing.
- II. Tier II reports identifying “fire hazards” shall be photocopied on red paper.
- III. The 2000 Community-Right-To-Know inspection shall be expanded to include tenant spaces, and Port Authority occupied floors.

Should you have any questions or suggestions, please contact me at x 8507. I would also appreciate any recommendations you may have regarding the proposed format for the 2000 report. Thank you.


Phil Taylor

WTC FOOD ESTABLISHMENT INSPECTION PROGRAM

THE PORT AUTHORITY OF NY & NJ

MEMORANDUM

TO: Phil Taylor, Supervising Engineer
FROM: Pete Negron
DATE: October 11, 1999

SUBJECT: 1999 Food Establishment Inspection Program.

The following is the summary of the Food Establishment Inspection Program at the World Trade Center.

Assisted the Inspection & Safety Division with their Food Establishment Inspection Program at the World Trade Center, the follow-up procedures were as follows:

- 1) At the conclusion of each inspection, the I&SD public health sanitarian provided to the restaurant operator with a "Corrective Action Form". This form, was completed and returned by the operator, the operator stated on the document what the operator did to correct the noted deficiencies (violations of the NYC Health Code or PA standards). These forms were returned to the I&SD within 5 days to 10 days of the initial inspection.
- 2) Upon receipt of the Form, the I&SD public health sanitarian decided if a follow-up visit was required. The basis of this determination was based upon the type of violation, extent of the problem, and the thoroughness of the response. If the response was comprehensive, no further action was taken.

If on the other hand, the food establishment did not respond, or the public health sanitarian felt the operator's response was incomplete, that establishment was re-visited.

During the second visit, the operator was again advised of their obligation to complete the Form, and submit it to the I&SD. After an additional 5 days the operator did not submit the Form, the I&SD public health sanitarian returned to the establishment to determine if the noted deficiencies still existed. If they did, the options available to the I&SD public health sanitarian are, but were not limited to:

- a) Discarded and denatured all raw or prepared foods which was contaminated,
- b) Discarded and denatured all out-dated dairy products,
- c) Discarded and denatured all cold and hot foods stored out of temperature,
- d) Cease all food preparation on surfaces which are contaminated,
- e) Discarded and denatured all food which was prepared on contaminated surfaces,
- f) Ceased all food handling and preparation if employee handwashing facility was inadequate,
- g) Ceased food preparation in areas where insect or rodent activity or droppings are present,
- h) Shut down the establishment.

Prior to any action being taken, the I&SD public health sanitarian notified, and requested assistance from, the facility. Initial inspections at the WTC started on Monday, September 13th and was completed the two weeks thereafter.

To: Lee Zucchi

Cc: R. Benacchio, J. Castaldo L. Menno, E. Monteverde, M. Plaskon,
B. Ramos, N. Seliga, P. Taylor, G. Wojnar, F. Varriano.

Subject: REVISED PA FOOD ESTABLISHMENT INSPECTION PROGRAM.

The Inspection & Safety Division has revised their Food Establishment Inspection Program follow-up procedures as follows:

1) At the conclusion of each inspection, the I&SD public health sanitarian shall provide to the restaurant operator a "Corrective Action Form". This form, to be completed by the operator, shall document what the operator is going to do to correct the noted deficiencies (violations of the NYC Health Code or PA standards). These forms must be returned to the I&SD within 5 days of the initial inspection.

2) Upon receipt of the Form, the I&SD public health sanitarian shall decide if a follow-up visit is required. The basis of this determination shall be based upon the type of violation, extent of the problem, and the thoroughness of the response. If the response is comprehensive, no further action shall be taken.

If on the other hand, the food establishment doesn't respond, or the public health sanitarian feels the operator's response is incomplete, that establishment shall be re-visited.

During the second visit, the operator shall again be advised of their obligation to complete the Form, and submit it to the I&SD. If after an additional 5 days the operator still does not submit the Form, the I&SD public health sanitarian shall return to the establishment to determine if the noted deficiencies still exist. If they do, the options available to the I&SD public health sanitarian are, but not limited to:

- a) Discard and denature all raw or prepared foods which may be contaminated.
- b) Discard and denature all out-dated dairy products.
- c) Discard and denature all cold and hot foods stored out of temperature.
- d) Cease all food preparation on surfaces which are contaminated.
- e) Discard and denature all food which was prepared on contaminated surfaces.
- f) Cease all food handling and preparation if employee handwashing facility is inadequate.
- g) Cease food preparation in areas where insect or rodent activity or droppings are present.
- h) Shut down the establishment.

Prior to any action being taken, the I&SD public health sanitarian shall notify, and request assistance from, the facility. Initial inspections at the WTC start on Monday, September 13th. The WTC and the I&SD has always worked cooperatively in this area and will continue to do so.

Should it become necessary for the I&SD public health sanitarian to take any action, my office shall be notified, and we will in turn notify the appropriate Property Manager.

PT

HAZARDOUS WASTE PLAN TABLE OF CONTENTS

ylor, Phillip

From: Taylor, Phillip
Sent: Friday, December 03, 1999 7:20 AM
To: Negron, Peter; Burton, Arthur
Cc: Zucchi, Lee
Subject: WTC / US EPA RCRA PLAN.

Attached please find the beginnings of our RCRA plan. I am also putting a hard copy in your mailboxes.



RCRA.doc

PT

Outline for the World Trade Center's Hazardous Waste Management Plan

I) Introduction:

- What are the sources of hazwaste at the WTC,
- What types of hazwastes are generated,
- What are our regulatory obligations to manage the hazwaste,

II) Objective of Plan:

- To develop a management plan which ensures the protection of the environment and personnel,
- To develop a management plan which ensures the safe handling and storage of hazwaste,
- To develop a management plan which ensures the proper classification of hazwaste,
- To develop a management plan which ensures the proper hazwaste consignment labeling,
- To develop a management plan which ensures the proper hazwaste manifesting,
- To develop a management plan which ensures emergency responses to releases.

How to achieve Objectives –

- Develop a management plan consistent with the US EPA RCRA regulation,
- Develop a management plan based upon an identification of the waste streams,
- Develop a management plan following best management and industry practices,
- Develop a management plan with detailed emergency response procedures,
- Develop a management plan emphasizing awareness and training.

III) The Resource Conservation and Recovery Act of 1976

Introduce RCRA –

- 1) What it is,
- 2) Why it was enacted,
- 3) When it was enacted,
- 4) What it regulates,
- 5) What it defines,
- 6) What is applicability to the WTC

IV) Regulatory Sections Applicable to the World Trade Center Definitions

- Citations
- Applicable Sections of Compliance

V) Spill Preparedness

- The World Trade Centers Emergency Response Plan To Hazardous Materials Incidents

WTC SAFETY COMMITTEE

Taylor, Phillip

From: Taylor, Phillip
Sent: Tuesday, November 09, 1999 10:43 AM
To: Ardizzone, Leonard; Devlin, William; Strauss, Edward; Hurley, Michael; Riccardelli, Francis; De Martini, Frank; Koebel, Teresa; Menno, Louis; Seliga, Nancy; Monteverde, Edwin
Cc: Castaldo, John; Zucchi, Lee; Lutin, Delia; Serio, Augustine
Subject: WTC SAFETY COMMITTEE.

In accordance with the guidelines established by the PA and the Inspection & Safety Division, and to be consistent with the practices at other PA facilities, I am in the process of establishing the WTC's Safety Committee for the year 2000. On a monthly basis, meetings are held at each PA facility to address the broad range of worker safety issues. At KIA for example, under the Safety Committee there are sub-committees to address and report on issues pertaining to office safety, construction safety, and traffic safety. The committees have representatives from each unit, with levels ranging from facility managers to FMs.

The objective for our WTD Committee shall be to 1) implement the U.S. OSHA "Program Evaluation Profile (PEP)", 2) encourage the safety management relationship of "man, media, machine, and management", and 3) evaluate the types and classes of injuries with the end result being occurrence reduction.

US OSHA PEP -

The U.S. OSHA PEP is a performance-based criteria in which 1) workplace analysis, 2) hazard prevention, 3) management leadership and worker participation, 4) safety and health training, 5) accident analysis, and 6) emergency responses, are evaluated.

"MAN, MEDIA, MACHINE, and MANAGEMENT" -

The relationship between "man (person), media, machine, and management" in accident causation and prevention is a concept which states that a deficiency in one area creates a domino effect increasing the likelihood of an accident.

INJURY REDUCTION-

By reviewing the types of injuries, we can focus on what specific measures need to be taken to reduce, and hopefully eliminate, any re-occurrences. The most effective way to accomplish this is by performing a Job Safety Analysis.

To establish our Committee, I am requesting that you provide me with two names: 1) the name of the primary Safety Committee representative, and 2) the name of an alternate. In addition to PA staff, I have the concurrence from the Inspection & Safety Division to have contract staff participate on our committee. I am therefore requesting the names of the primary and alternate for ABM Janitorial, ABM Engineering Services (I shall address this), ACE Elevator, Summit Security, FINE Painting, and Turner Construction.

I would like to have our first Committee meeting in January. Please provide me the Committee members (PA and contract staff) names by the end of November so that I can formally invite them to our kick off meeting.

Please call me at 8507 should you have any questions.

Thanks.

PT

APPENDIX H-7

Asbestos-Containing Materials

APPENDIX H-7.1

Memorandum Regarding Asbestos Notification

Taylor, Phillip

o: Wayne
Subject: ASBESTOS NOTIFICATION.

You asked on Monday if we comply with the NYC "ACP" forms. We do not.

The attached memos are prepared in lieu of the ACP forms. We have been using them for close to two years. As I indicated, we, the WT Department via a Call-in abatement contractor, performs the required abatements.

Phil
9/27/00

THE PORT AUTHORITY OF NY & NJ

Memorandum

TO: Abraham Friedman
FROM: Joe Amatuuccio
DATE: September 27, 2000

SUBJECT: ASBESTOS DISCLOSURE:
Two World Trade Center: 27th Floor.

COPY: A. Burton, J. Ciccolello, T. Lynch, E. Monteverde, P. Taylor,
F. Varriano, L. Zucchi

Regarding your inquiry as to the presence of asbestos-containing building materials present on the 27th floor in Two World Trade Center, our site survey and bulk sampling data base indicates the following:

On the 27th floor, there is no asbestos-containing sprayed-on fireproofing or thermal system insulation material present, as defined by the U.S. Environmental Protection Agency standard 40 CFR Part 61: National Emissions Standard For Hazardous Air Pollutants; Asbestos – Final Rule and the U.S. Occupational Safety and Health Administration standard 29 CFR 1910.1001: Asbestos, within the leasehold area. Asbestos-containing sprayed-on fireproofing is however present behind the core walls, but not the within the core's plenum. Vinyl asbestos floor tiles have been identified on the west, east, and south quadrants of the floor.

Should you have any questions, please contact me at x 2704.

Joe Amatuuccio
Manager,
Operations & Maintenance Management

THE PORT AUTHORITY OF NY & NJ

Memorandum

TO: Joanne Ciccollo
FROM: Joe Amatuuccio
DATE: September 27, 2000

SUBJECT: ASBESTOS DISCLOSURE:
One World Trade Center: 33rd and 34th Floors.

COPY: A. Burton, T. Lynch, E. Monteverde, P. Taylor, F. Varriano, L. Zucchi

Regarding your inquiry as to the presence of asbestos-containing building materials present on the 33rd and 34th floors in One World Trade Center, our site survey and bulk sampling data base indicates the following:

On the 33rd floor, there is no asbestos-containing sprayed-on fireproofing or thermal system insulation material present, as defined by the U.S. Environmental Protection Agency standard 40 CFR Part 61: National Emissions Standard For Hazardous Air Pollutants; Asbestos – Final Rule and the U.S. Occupational Safety and Health Administration standard 29 CFR 1910.1001: Asbestos, within the leasehold area. Asbestos-containing sprayed-on fireproofing is however present behind the core walls, but not the within the core's plenum. Vinyl asbestos floor tiles have been identified on the northwest quadrant of the floor.

On the 34th floor, there is no asbestos-containing sprayed-on fireproofing or thermal system insulation material present, as defined by the U.S. Environmental Protection Agency standard 40 CFR Part 61: National Emissions Standard For Hazardous Air Pollutants; Asbestos – Final Rule and the U.S. Occupational Safety and Health Administration standard 29 CFR 1910.1001: Asbestos, within the leasehold area. Asbestos-containing sprayed-on fireproofing is however present behind the core walls, but not the within the core's plenum. There is are no vinyl asbestos floor tile present.

Should you have any questions, please contact me at x 2704.

Joe Amatuuccio
Manager,
Operations & Maintenance Management

APPENDIX H-7.2

Asbestos Memorandum Regarding Signs

The Port Authority of NY & NJ

MEMORANDUM

TO: Joe Amatuuccio
FROM: Phil Taylor
DATE: August 28, 2000

SUBJECT: ASBESTOS SIGNS.

COPY: F. Varriano, L. Zucchi

In U.S. OSHA standard 29 CFR 1910.1001: Asbestos, section (j)(3)(v), the building owner shall "At the entrance to mechanical rooms/areas in which employees reasonably can be expected to enter and which contain ACM and/or PACM, the building owner shall post signs which identify the material which is present, its location, and appropriate work practices which, if followed, will ensure that ACM and/or PACM will not be disturbed...."

In section (j)(4)(i and ii), OSHA goes on to define the wording of the required label and/or sign as follows:

DANGER

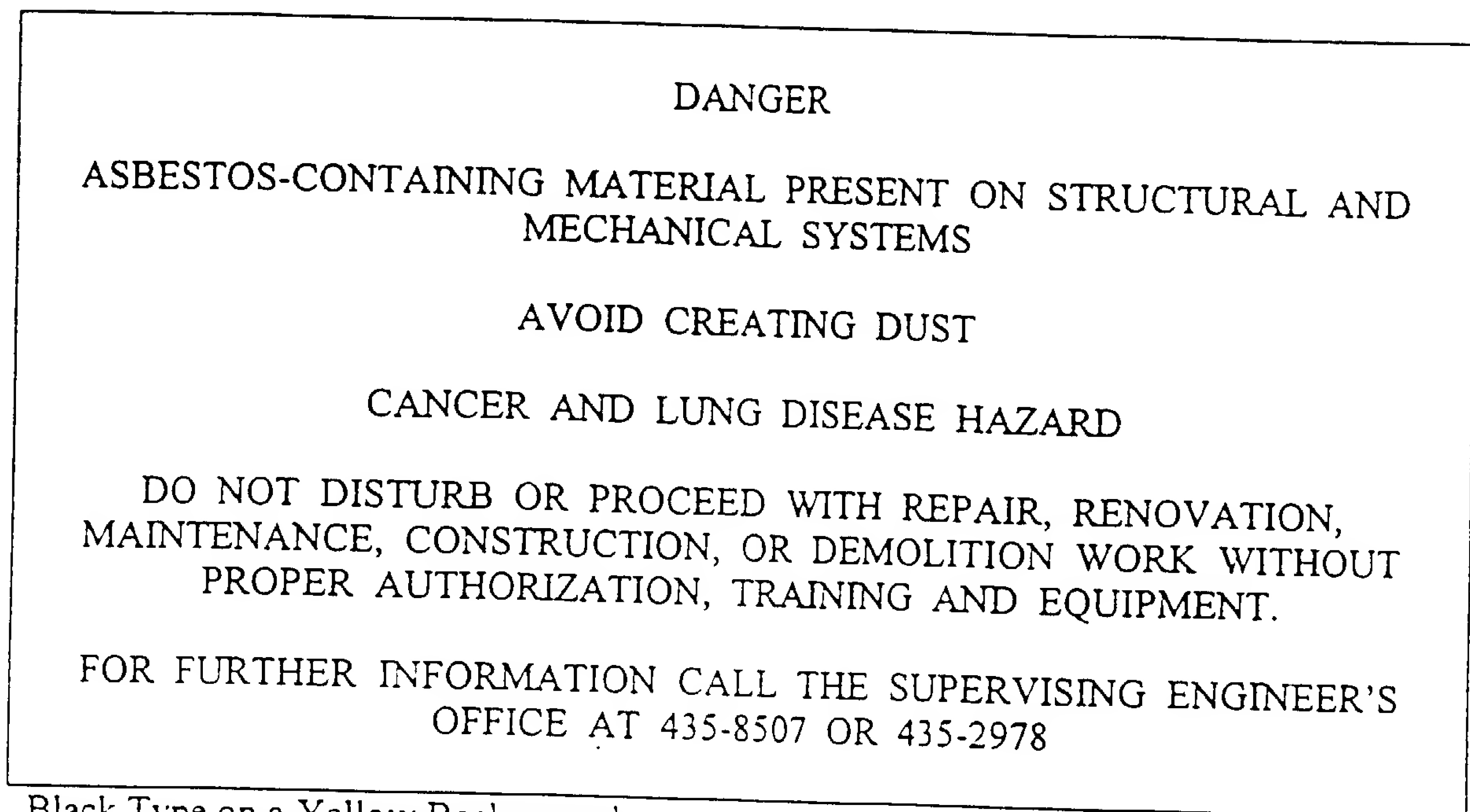
CONTAINS ASBESTOS FIBERS

AVOID CREATING DUST

CANCER AND LUNG DISEASE HAZARD

This label/sign must be affixed/posted so that it is clearly noticed by employees upon entrance into an area containing ACM and/or PACM.

A few years ago, the PA drafted a warning sign meeting the intent of OSHA. The following was prepared by the former Office of Environmental Policy and Management, and approved by the Law Department for use at PA facilities.



I recommend that we post this sign in the following locations:

- 1) Access ways into the MERs
- 2) Within asbestos-containing elevator pits and shafts
- 3) Access way into the Catwalks
- 4) Truckdock

Please let me know what you think.


Phil Taylor


O.K. to proceed. 

~~TOP SECRET~~
Taylor, Phillip

CC: LENNY, JOE

Subject: ASBESTOS SIGNS.

I would like the PA Sign Shop to fabricate the attached asbestos sign.

example given D Day

The print must be black, all capitals, and standard lettering font.

The background must be yellow.

The sign needs to be printed in landscape and portrait.

Holes need to be punched at each corner for mounting.

I would like to look at an example of the sign before mass production.

Eventually, we will need 100 signs; 50 landscape and 50 portrait.

Thanks,

Phil

AF.
9/27/00

APPENDIX H-7.3

Memorandum Regarding Asbestos Positive Locations at the WTC Update

TO: Joseph Amatuuccio, Carla Bonacci, Jerrold Dinkels,
Frank DiMartini, Eric Hauser, Louis Menno,
Edwin Monteverde, Francis Riccardelli, Nancy Seliga

FROM: John Castaldo

DATE: September 19, 2000

SUBJECT: ASBESTOS POSITIVE LOCATIONS AT THE
WORLD TRADE CENTER: UPDATE.

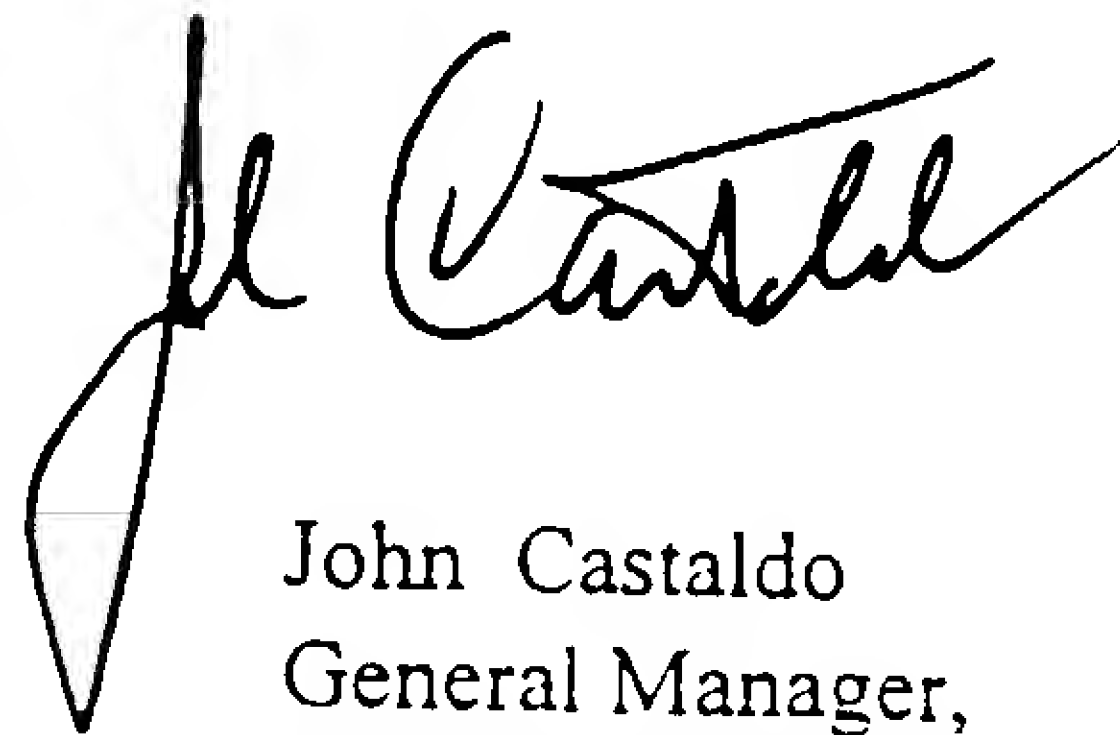
REFERENCE: J. Castaldo to Addressees; Memorandums Dated 5/4/98
and 12/21/99; Same Subject.

COPY: L. Ardizzone, S. Benjamin, I. Chachkes, J. Connors,
W. Devlin, M. Finegold, M. Hurley, M. Jakubek,
M. Kirshner, T. Lynch, U. Mehta, G. Meyer, R. Muessig,
C. Nanninga, A. Reiss, E. Strauss, G. Tabek, P. Taylor,
F. Varriano, L. Zucchi, Operations Control Desk, S-4's

Attached please find an update to my initial May, 1998 memorandum wherein the known asbestos locations at the World Trade Center were disclosed. The information provided in this disclosure is a compilation of available bulk sampling and analytical results from both the World Trade and Engineering Departments' data bases.

In compliance with the disclosure requirements of the U.S. Occupational Safety and Health Administration's asbestos standard, I am requesting that this information be distributed to all World Trade Department, Engineering Department, PA Office Space, and Leasing Division property managers, project managers, construction managers, construction inspectors, operations supervisors, security supervisors, facility maintenance supervisors, and leasing agents associated with the allocation of space, and the design and implementation of World Trade Center projects. Additionally, please forward this information to those contractors under your administration. If there are questions as to the presence of asbestos-containing materials at a particular location, or if the scope of demolition and/or renovation work may impact asbestos-containing materials, please contact Art Burton, Assistant Environmental Coordinator, at 435-8364.

Those on the copyline are requested to contact this office for the appropriate response action if asbestos-containing materials may be impacted by work under your jurisdiction. The Port Authority complies with Industrial Code Rule #56 relative to worker certifications, contractor licensing, and work procedures if asbestos is going to be disturbed or impacted. Please contact me at 435-8518 should you have any questions.

A handwritten signature in black ink, appearing to read "John Castaldo". The signature is stylized with a large, sweeping initial "J" and a cursive "Castaldo".

John Castaldo
General Manager,
Base Building Services

**Asbestos-Containing Surfacing And/Or Thermal System Insulation Materials Located In
One World Trade Center - Exclusive Of Elevator Shafts**

<u>Full Floor Locations</u>	<u>Random Locations On Floor</u>	<u>Subgrades</u>	<u>Convactor Units</u>
- Lobby Mezzanine	- 43 rd / 44 th Floor PA	- B1 Level:	- 77 th Floor
- 1 st - 6 th Floors: Core	Exhaust Duct	- Core, N/E Quadrant	- 79 th Floor
- 6 th Floor Catwalk	- 82 nd Floor	- B6 Level	- 88 th Floor
- 7 th / 8 th Floor MER	- 104 th Floor		- 101 st Floor
- 41 st / 42 nd Floor MER	- Core Electric Closets		- 103 rd Floor
- 75 th / 76 th Floor MER	On The 1 st - 40 th floors		- 105 th floor
- 108 th / 109 th Floor MER	- Perimeter Electric Closets On The 30 th Floor		

**Asbestos-Containing Surfacing And/Or Thermal System Insulation Materials Located In
Two World Trade Center - Exclusive Of Elevator Shafts**

<u>Full Floor Locations</u>	<u>Random Locations On Floor</u>	<u>Quadrant Location</u>	<u>Convactor Units</u>
- 6 th Floor Catwalk	- Lobby Mezzanine	- S/W, 43rd Floor	- 22 nd Floor
- 10 th - 13 th Floors (Bell Atlantic)	- 7 th / 8 th Floor MER	Kitchen Exhaust Duct	- 24 th Floor
- 41 st / 42 nd Floor MER	- 9 th Floor		- 59 th Floor
	- 19 th Floor		- 72 nd Floor
	- 20 th Floor		- 79 th Floor
	- 26 th Floor		- 81 st Floor
	- 33 rd Floor		- 84 th Floor
	- 71 st Floor		- 86 th Floor
	- 75 th / 76 th Floor MER		- 87 th Floor

**Asbestos-Containing Surfacing And/Or Thermal System Insulation Materials Located In
Four And Five World Trade Center**

There is no asbestos-containing sprayed-on fireproofing in Four and Five World Trade Center.
A cementitious patch has been identified on a beam in the south wing of the southwest portion on the 5th floor in 5 WTC.
Thermal system insulation is present in the form of pipe saddles.

**Asbestos-Containing Surfacing And/Or Thermal System Insulation Materials Located On
The Concourse**

There is no asbestos-containing sprayed-on fireproofing in the plenum of the Concourse.
Thermal system insulation material is present.

ACM

**Asbestos-Containing Surfacing And/Or Thermal System Insulation Materials Located On
The B1 Level And The Truckdock**

Asbestos-containing sprayed-on fireproofing and thermal system insulation material is present.

Miscellaneous Asbestos-Containing Materials At The World Trade Center

Base building flooring throughout the facility is vinyl asbestos floor tile (VAT).

World Trade Center Elevator Shafts With Asbestos-Containing Surfacing Insulation Material

One World Trade Center

Pits and Shafts

1 / 2	39 / 40 / 41
3 / 4	42 / 43 / 44
5 / 48	45 / 46 / 47
8 / 9	51 / 52 / 53
16 / 17	54 / 55 / 56
49	57 / 58 / 59
18 / 19	60 / 61 / 62
20 / 21	63 / 64 / 65
22 / 23	66 / 67 / 68
50	69 / 70 / 71
24 / 25 / 26	72 / 73 / 74
27 / 28 / 29	
30 / 31 / 32	
33 / 34 / 35	
36 / 37 / 38	

Two World Trade Center

Pits and Shafts

5 / 48	36 / 37 / 38
10 / 11	39 / 40 / 41
14 / 15	42 / 43 / 44
24 / 25 / 26	45 / 46 / 47
27 / 28 / 29	54 / 55 / 56
30 / 31 / 32	57 / 58 / 59
33 / 34 / 35	63 / 64 / 65

There is no asbestos-containing surfacing insulation material in the J and K elevator cars in 1 and 2 WTC.

There is no asbestos-containing surfacing insulation material with the elevator shafts in 4 and 5 WTC.

APPENDIX H-7.4

1999 Year End Environmental Summary Report,
Sections 3 & 5

- SECTION THREE -

**WORLD TRADE CENTER ENVIRONMENTAL PROGRAMS
1999 YEAR END REPORT**

The attached 1999 Year End Report summarizes the environmental activities within the World Trade Department's Supervising Engineer's Office. The report's Table Of Content is as follows:

Section One: Program Highlights

I. Asbestos Program

- 1) Asbestos Abatement Projects
- 2) World Trade Center Asbestos Disclosure
- 3) Elevator Shaft Assessment
- 4) Preparation of the New World Trade Center Call-in Contract

II. Safety Program

- 1) ABM Engineering Site Safety Program

III. Environmental Program

- 1) Hazardous Waste Management
- 2) Community-right-To-Know Inspections
- 3) Food Establishment Inspection Program
- 4) Indoor Air Quality Program

IV. Management Plans Initiated in 1999

- 1) World Trade Center Hazardous Waste Management Plan
- 2) World Trade Center Compressed Gas Safety Plan

V. Objectives For 2000

VI. Program Evaluation

VII. Workplace Conduct

Section Two: Attachments

The Port Authority of NY & NJ

Memorandum

TO: John Castaldo, Lee Zucchi
FROM: Art Burton, Pete Negron, Phil Taylor
DATE: January 5, 2000

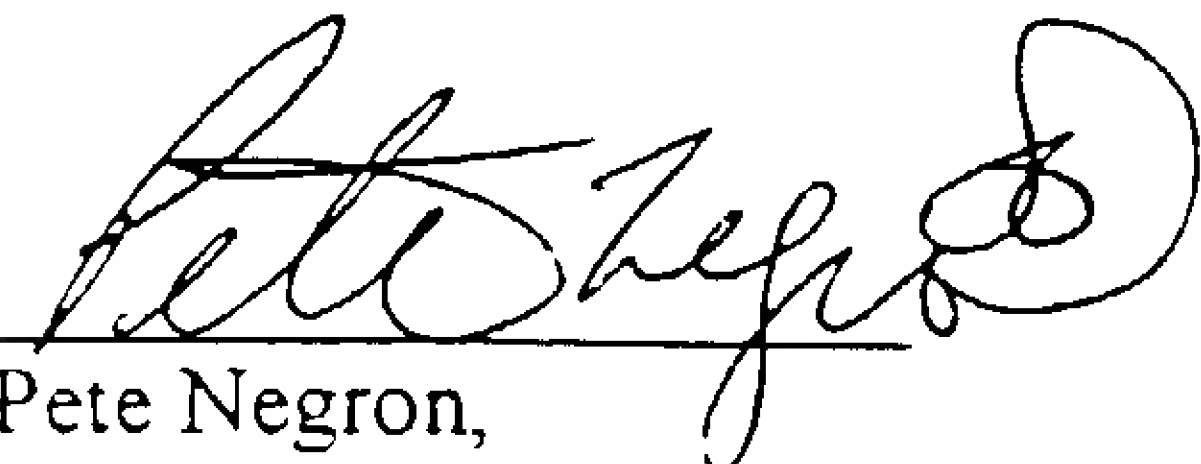
SUBJECT: ENVIRONMENTAL PROGRAMS YEAR END REPORT.

Attached please find the subject report.

Prepared By:



Art Burton,
Assistant Environmental
Programs Coordinator



Pete Negron,
Asbestos Programs Coordinator



Phil Taylor,
Environmental Programs Coordinator

ASBESTOS AND ENVIRONMENTAL PROGRAMS 1999 YEAR END REPORT

TABLE OF CONTENTS

Section One: Program Highlights.

I) Asbestos Program

- 1) Asbestos Abatement Projects
- 2) World Trade Center Asbestos Disclosure
- 3) Elevator Shaft Assessment
- 4) Preparation Of The New World Trade Center Call-in Contract

II) Safety Program

- 1) ABM Engineering Site Safety Program

III) Environmental Program

- 1) Hazardous Waste Management
- 2) Community Right-To-Know Inspections
- 3) Food Establishment Inspection Program
- 4) Indoor Environmental Quality Program

IV) Management Plans Initiated in 1999

- 1) World Trade Center Hazardous Waste Management Plan
- 2) World Trade Center Compressed Gas Safety Plan

V) Objectives For 2000

VI) Program Evaluation

VII) Workplace Conduct

Section Two: Attachments.

- 1999 Asbestos Projects
- World Trade Center Asbestos Disclosure Report
- Elevator Shaft Assessment Report
- World Trade Center Asbestos Abatement Contract Administration
- US EPA Community Right-To-Know Memorandum
- World Trade Center Food Inspection Program
- Hazardous Waste Plan Table of Contents
- World Trade Center Safety Committee

SECTION ONE

- PROGRAM HIGHLIGHTS -

I) ASBESTOS PROGRAM

1) **Asbestos Abatement Projects:**

In 1999, a total of 130 asbestos abatement projects were performed under World Trade Department contract WTC - 115.295. The cost associated with this work was \$2.2 million. In addition, a total of 1,600 cubic yards of asbestos waste was generated.

In summary, 48 vinyl asbestos floor tile projects, 40 fireproofing removals via tent enclosure removal, 17 elevator release responses, 18 surface clean-ups, and 7 Capital projects were performed. The table in Section Two: Attachments – 1999 Asbestos Projects, describes each project.

2) **World Trade Center Asbestos Disclosure:**

In accordance with the US Department of Labor's Occupational Safety and Health Administration asbestos regulation 29 CFR 1926.1101: Asbestos in Construction, sections (b): Definitions, and (d)(1-5): Multi-employer worksites, as the building owner the World Trade Department is required to disclose the presence of known or presumed asbestos-containing building materials. The memorandum in Section Two: Attachments – **World Trade Center Asbestos Disclosure Report**, was prepared to notify all concerned parties as to the known locations of asbestos-containing building materials.

3) **Elevator Shaft Assessment:**

With the assistance of World Trade Vertical Transportation, a condition survey was performed in 22 high rise elevator shafts to explore the control options (full scale removal, localized removal, operations & maintenance response, management-in-place) available to the World Trade Department.

The report in Section Two: Attachments – **Elevator Shaft Inspections**, details the findings. In summary, it was recommended that the asbestos in elevator shafts 22/23A, 10/11B, and 5/48B be completely removed due to signs of delamination. The asbestos in the remaining elevator shafts was found to be intact, and can be controlled by management-in-place practices, and operations & maintenance responses.

4) Preparation of the New WTC Call-In Contract:

The World Trade Department's Call-in asbestos abatement contract expired on December 3, 1999. Following discussions with the Engineering Department, it was decided that the Environmental Construction Division of the Engineering Department would administer the next contract for the World Trade Department. Working closely with the Engineering Department's Project, Construction, and Design Divisions, a new contract was developed expanding upon the scope of the previous Call-in contract.

Supplementing the Port Authority's technical specification for "Asbestos Abatement and Disposal, this contract includes all of the applicable variances for the World Trade Center; Vinyl Asbestos Floor Tile Removal Utilizing Dry Ice, Tent Enclosure For The Removal of Fireproofing and Thermal System Insulation, and Application of Spray Encasement To Fireproofing.

World Trade Contract 115.300 was awarded to the asbestos abatement firm of Comprehensive Environmental of New York (CENY). Pete Negron shall continue to coordinate abatement project requests for the World Trade Department. The memorandum in Section Two: Attachments – **World Trade Center Asbestos Abatement Projects**, outlines this change in contract administration, and the procedures to be implemented when requesting abatement work was prepared was distributed to World Trade Department and Real Estate management staff.

1999 ASBESTOS PROJECTS

WTC ASBESTOS DISCLOSURE

W.O. #	PROJECT	SCOPE	TOTAL HRS	ABATED S.F.	UNIT HR/S.F.	CARPET S.F.	CARPET COST	TOTAL COST
PAYMENT NO. 1								
253	1 WTC B-2	VAT		3,475	\$4.80			\$ 17,895.60
256	4 WTC 7 th flr	VAT		14,250	\$1.90			\$ 29,010.60
252	1 WTC 54th flr	VAT		22,500	\$1.90	19,000	\$ 5,700.00	\$ 49,665.60
259	1 & 2 WTC MER STP	CLEAN	1,136		\$54.24			\$ 62,832.24
260	1 WTC 53rd flr	VAT		3,200	\$4.80			\$ 16,575.60
196	1 WTC B-1 stock	CLEAN	443		\$54.24			\$ 24,001.20
251	5 WTC 10th EMR	CLEAN	40		\$54.24			\$ 2,169.60
PAYMENT NO. 2								
261	2 WTC 34th	VAT		4,600	\$4.80	500	\$ 150.00	\$ 23,445.60
264	4 WTC 3rd	VAT		4,350	\$4.80			\$ 22,095.60
251	1 WTC B-1 K-2 EMR	CLEAN	24		\$54.24			\$ 4,181.76
253	1 WTC B-2	VAT		2,584	\$4.80			\$ 12,403.20
262	2 WTC 89th flr	VAT		34,500	\$1.90			\$ 66,765.60
258	4 WTC B-1	VAT		580	\$6.22			\$ 4,823.20
259	1 & 2 WTC MER STP	CLEAN	2,420		\$54.24			\$ 131,260.80
196	1 WTC stock	ACM		1,660	\$54.24			\$ 90,038.40
267	2 WTC 28th flr	VAT		1,850	\$4.80	1,000	\$ 300.00	\$ 10,543.60
265	1 WTC 83rd flr	VAT		6,286	\$3.05	6,286	\$ 1,885.80	\$ 22,273.70
254	4 WTC 9th flr	VAT		7,200	\$3.05			\$ 23,175.60
EWO 39	4 WTC 3rd flr stair	CLEAN	28		\$54.24			\$ 1,518.72
PAYMENT NO. 3								
268	1 WTC 46th flr	VAT		990	\$6.22	990	\$ 297.00	\$ 7,070.40
273	4 WTC 5 th flr	VAT		4,650	\$4.80			\$ 23,535.60
266	2 WTC 25th flr	VAT		33,500	\$1.90			\$ 64,865.60
274	1 WTC 51th flr	VAT		3,700	\$4.80	850	\$ 255.00	\$ 19,230.60
196	1 WTC B-1 stock	ACM	2,790		\$54.24			\$ 151,302.48
EWO 040	2 WTC 6th flr	CLEAN	24		\$54.24			\$ 1,301.76
EWO 041	2 WTC elev 37 & 38th flr	CLEAN	6		\$54.24			\$ 433.92
112	1 WTC mezz DR RM	ACM	33		\$54.24			\$ 18,209.40
234	1 WTC B-1 lev subs	ACM	94		\$54.24			\$ 14,500.00
271	4 WTC conc	VAT		220	\$6.22			\$ 1,624.00
263	1 WTC corE closets	CLEAN	108		\$54.24			\$ 5,857.92

135,640 ϕ

PAYMENT NO. 4									
196	1 WTC B-1 stock	ACM	1,310		\$54.24			\$	71,054.40
257	1 WTC B-2 shop	CLEAN	883		\$54.24			\$	48,149.52
269	1 WTC 101st flr	VAT	1,177		\$54.24			\$	65,056.08
270	2 WTC B-4	VAT		7,200	\$3.05			\$	23,175.60
276	1 WTC mezz post	CLEAN	48		\$54.24			\$	2,603.52
278	2 WTC B-6	SPOT	80		\$54.24			\$	4,339.20
279	2 WTC 88th flr	VAT		34,600	\$1.90	6,500	\$ 1,950.00	\$	68,905.60
280	2 WTC 34th flr	VAT		2,225	\$4.80	480	\$ 135.00	\$	10,815.00
283	1 WTC 108th flr	VAT		600	\$6.22			\$	4,347.60
284	1 WTC B-6	VAT		1,600	\$4.80			\$	8,895.60
285	1 WTC mezz DR RM	ACM		310.50	\$54.24			\$	16,977.12
287	1 WTC mezz tank	SPOT	48		\$54.24			\$	2,603.52
288	1 WTC B-1	CLEAN	16		\$54.24			\$	867.84
EWO 042	1 WTC elev 49 & 50	CLEAN	8		\$54.24			\$	433.92
EWO 043	2 WTC 5th flr	CLEAN	16		\$54.24			\$	867.84
PAYMENT NO. 5									
116.097	1 WTC B-1	VAT		30	\$6.22			\$	2,000.60
116.099	1 WTC 22nd	VAT		1,400	\$4.80	900	\$ 270.00	\$	8,025.60
116.096	2 WTC 34th flr	VAT		200	\$6.22			\$	1,379.60
116.094	2 WTC 26th flr	VAT		3,200	\$1.90	2,500	\$ 7,500.00	\$	69,515.60
EWO 050	1 WTC elev 22 & 23	CLEAN	16		\$54.24			\$	867.84
EWO 049	1 WTC elev 19	CLEAN	39		\$54.24			\$	2,115.36
EWO 048	5 WTC 2nd flr	CLEAN	104		\$54.24			\$	5,640.96
116.1	1 WTC 85th flr	VAT		2,800	\$4.80			\$	14,655.60
EWO 057	1 WTC elev 16 & 17	CLEAN	136		\$54.24			\$	7,376.64
116.091	6 WTC B-1 sub	ACM	807.50		\$54.24			\$	62,409.60
293	1 & 2 conc lights	CLEAN			NET			\$	1,721.17
PAYMENT NO. 6									
272	4 WTC 7th flr	VAT		13,690	\$1.90			\$	27,226.60
116.09	2 WTC 53rd flr	VAT		15	\$6.22			\$	2,289.90
293	1 & 2 WTC	CLEAN			\$54.24			\$	3,254.40
EWO 045	1 WTC elev 16 & 17	CLEAN	109		\$54.24			\$	5,912.16
EWO 046	2 WTC elev 33-35	CLEAN	44		\$54.24			\$	2,386.56
EWO 047	1 WTC 18-19	CLEAN	24		\$54.24			\$	1,301.76

64,745.77

PAYMENT NO. 7									
EWO 051	1 WTC elev 16 & 17	CLEAN	136		\$54.24				\$ 7,376.64
116.094	2 WTC 26th flr	VAT		32,000	\$1.90	25,000	\$ 7,500.00		\$ 69,515.60
116.096	2 WTC 34th flr	VAT		200	\$6.22				\$ 1,379.60
116.097	1 WTC B-3	VAT		300	\$6.22				\$ 2,001.60
116.099	1 WTC 22nd flr	VAT		1,400	\$4.80	900	\$ 270.00		\$ 8,205.60
116.1	1 WTC 85th flr	VAT		2,800	\$4.80				\$ 14,655.60
EWO 048	5 WTC 2nd flr	CLEAN	104		\$54.24				\$ 5,640.96
EWO 049	1 WTC elev 19th flr	CLEAN	39		\$54.24				\$ 2,115.36
116.091	6 WTC B-1 sub	ACM	803		\$54.24				\$ 62,409.60
EWO 50	1 WTC elev 22-23	CLEAN	16		\$54.24				\$ 867.84
293	1 & 2 WTC conc. Lights	CLEAN			NET				\$ 1721.17
PAYMENT NO. 8									
116.102	WTC conc.	VAT		384	\$6.22				\$ 3,004.08
116.092	1 WTC 102nd flr	VAT		23,400	\$1.90				\$ 45,675.60
116.103	1 WTC B-4	VAT		1,700	\$4.80				\$ 9,375.60
116.095	1 WTC 104th flr	VAT		550	\$6.22				\$ 4,036.60
245	1 WTC 42nd MER	ACM	466		\$54.25				\$ 25,275.84
116.091	6 WTC B-1 sub	ACM	1,677		\$54.25				\$ 90,960.48
EWO 052	1 WTC elev 16 & 17	CLEAN	67		\$54.25				\$ 3,634.08
PAYMENT NO. 9									
116.105	2 WTC 75th flr	ACM	473		\$54.25				25,655.52
116.11	1 & 2 B-1 dust	DUST	842		\$54.25				45,670.08
116.104	2 WTC 22nd	VAT		1,850	\$4.80				\$ 10,095.00
116.108	2 WTC 27th flr	VAT		12,008	\$1.90				\$ 24,030.80
116.091	6 WTC B-1 sub	ACM	623.5		\$54.25				\$ 46,130.23
116.101	1 WTC B-6	CLEAN	456		\$54.22				\$ 24,733.44
PAYMENT NO.10									
EWO 053	WTC FLOYD	STANDBY	169		\$54.24				\$ 9,139.44
116.11	1 & 2 WTC B-1 test	CLEAN	224		\$54.24				\$ 12,149.76
116.115	1 WTC 79th flr	VAT		3,690	\$4.80				\$ 18,927.60
116.112	2 WTC 75th flr	VAT		430	\$6.22				\$ 3,290.20
116.114	1 WTC B-6	CLEAN	74		\$54.24				\$ 4,013.76
116.113	1 & 2 WTC catwalk	CLEAN	468		\$54.24				\$ 28,384.32
116.107	2 WTC B-2	VAT		1,500	\$4.80				\$ 8,415.60

pete

82,080.00

12/3/1999

116.116	1 WTC 41st MER	ACM	192		\$54.24		\$	10,414.08
PAYMENT NO.11								
116.107	2 WTC B-2 LVL corridor	VAT		1,030	\$4.80		\$	4,944.00
116.122	1 WTC B-1 LVL MER	CLEAN	48		\$54.24		\$	2,603.52
116.119	1 WTC 18th MER	CLEAN	48		\$54.24		\$	2,603.52
116.113	1 & 2 WTC catwalk	CLEAN	708		\$54.24		\$	38,401.92
PAYMENT NO.12								
275	1 WTC 87th flr	DOL FILING					\$	1,215.60
116.093	5 WTC 2nd flr	DOL FILING					\$	1,215.60
116.11	1 WTC 91st flr	DOL FILING					\$	1,215.60
116.117	4 WTC 5 th flr	VAT		35,000	\$1.90		\$	70,427.60
116.12	4 WTC B-1	VAT		1,080	\$4.80		\$	6,399.60
116.123	1 WTC 104th flr	SPOT	27		\$54.24		\$	1,461.48
116.124	1 & 2 WTC freight	VAT		550	\$6.22		\$	4,036.60
116.125	2 WTC 37th flr	DOL FILING					\$	1,215.60
116.126	1 WTC 86th flr	DOL FILING					\$	1,215.60
116.127	5 WTC 5th flr	VAT		13,500	\$1.90		\$	26,865.60

52,050
70786 334,515

THE PORT AUTHORITY OF NY & NJ

MEMORANDUM

TO: Jerrold Dinkles, Louis Menno, Edwin Monteverde,
Nancy Seliga.
FROM: John Castaldo
DATE: December 21, 1999
SUBJECT: ASBESTOS POSITIVE LOCATIONS IN THE
WORLD TRADE CENTER: UPDATE.
REFERENCE: J. Castaldo to T. Stam, memo dated 10/7/98, 5/4/98 ,
2/12/98, same subject.

COPY: J. Amatuuccio, L. Ardizzone, E. Auerbach, S. Benjamin,
V. Borst, C. Bonacci, I. Chachkes, C. DaCosta,
F. DeMartini, W. Devlin, J. DiSorbo, M. Hurley,
M. Jakubek, U. Mehta, Meyer, E. McGinnley, R. Muessig,
J. Napolitano, P. Negron, R. Pruno, F. Riccardelli,
J. Richardson, C. Semah, E. Strauss, P. Taylor, G. Tabeek,
L. Zucchi, Operations Control Desk, S-4's.

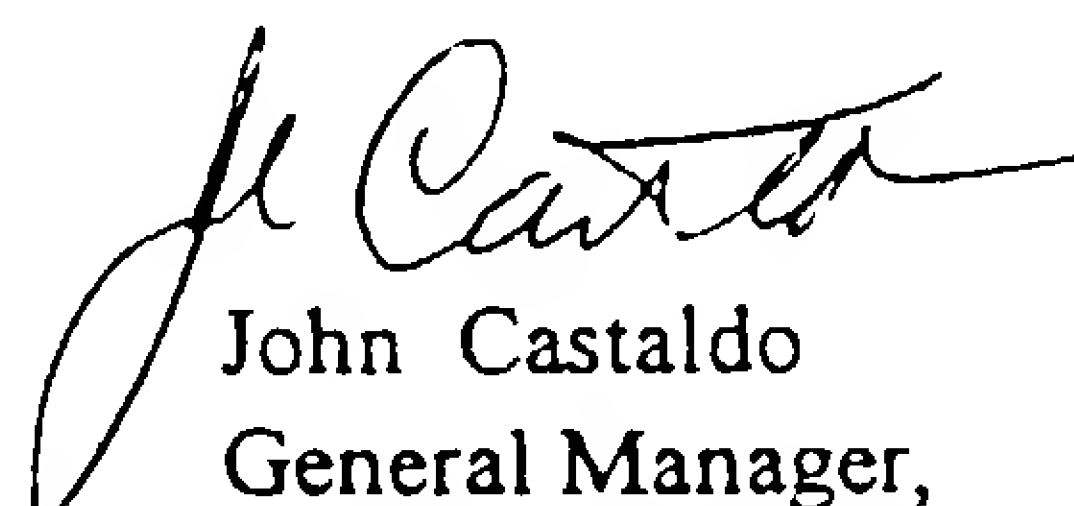
This memorandum is an update to my May, 1998 memorandum wherein I disclosed the known asbestos locations in the World Trade Center.

The S/E quadrant of the 104th in One World Trade Center floor has been abated, and has been removed from the Quadrant Location heading.

The Port Authority has been trying to comply with Industrial Code Rule #56 relative to worker certifications, contractor licensing, and work procedures if asbestos is going to be disturbed or impacted. You are requested to contact this office for the appropriate response action (*facility operations & maintenance activity, or referral to the Engineering Department for abatement*) if asbestos-containing materials may be impacted by work under your jurisdiction.

In compliance with the World Trade Department's asbestos disclosure requirements under the U.S. Occupational Safety and Health Administration asbestos regulation, I am requesting that this information be distributed to all World Trade Department maintenance and construction contractors, tenant contractors, and Engineering Department construction contractors.

Please contact me at 8518, or Pete Negron at 8364 if you have any questions.



John Castaldo
General Manager,
Building Services Management

**Asbestos-Containing Surfacing And Thermal System Insulation Materials Located In
One World Trade Center - Exclusive Of Elevator Shafts**

<u>Full Floor Locations</u>	<u>Quadrant Location</u>	<u>Random Locations On Floor</u>	<u>Subgrades</u>
Lobby Mezzanine 1st,- 6th Floors: Core 6th Floor Catwalk 7 / 8 Floor MER 41 / 42 Floor MER 75 / 76 Floor MER 108 / 109 Floor MER		43 / 44 Floor Exhaust Duct 72nd Floor 82nd Floor Core Electric Closets On The 1st - 40th Floors Perimeter Electric Closet On The 30th Floors	B1 Level: Core, North/ West/East Quadrant, B2 Level: Old Locksmith And B6 Level

**Asbestos-Containing Surfacing And Thermal System Insulation Materials Located In
Two World Trade Center - Exclusive Of Elevator Shafts**

<u>Full Floor Locations</u>	<u>Random Locations On Floor</u>	<u>Quadrant Location</u>
6th Floor Catwalk 10th - 13th Floors 41 / 42 Floor MER	Lobby Mezzanine 7 / 8 Floor MER 9th Floor 19th Floor 20th Floor 26th Floor 33rd Floor 71st Floor 75 / 76 Floor MER	S/W, 43rd Floor

**Asbestos-Containing Surfacing And Thermal System Insulation Materials Located In
Four And Five World Trade Center**

There is no asbestos-containing sprayed-on fireproofing in Four and Five World Trade Center.
Thermal system insulation is present in the form of pipe saddles.

**Asbestos-Containing Surfacing And Thermal System Insulation Materials Located On
The Concourse**

There is no asbestos-containing sprayed-on fireproofing in the plenum of the Concourse.
here is thermal system insulation material present.
ACM

**Asbestos-Containing Surfacing And Thermal System Insulation Materials Located On
The B1 Level And The Truckdock**

Asbestos-containing sprayed-on fireproofing and thermal system insulation material is present.

Miscellaneous Asbestos-Containing Materials At The World Trade Center

Base building flooring throughout the facility is vinyl asbestos floor tile (VAT).

ACBM is located behind the convector units at the following locations:

1 WTC; 77, 79, 88, 101, 103 and 105.

2 WTC; 22, 24, 59, 72, 79, 81, 84, 86 and 87.

World Trade Center Elevator Shafts With Asbestos-Containing Insulation Material

One World Trade Center

Shafts	1 - 5:	Elevator Pit to EMR
	8 - 9:	Elevator Pit to EMR
	16 - 21:	Elevator Pit to 32nd Floor
	22 - 23:	Elevator Pit to EMR
	48:	Elevator Pit to EMR
	49:	Elevator Pit to 32nd Floor
	50:	Elevator Pit to 31st Floor
	24 - 29:	Elevator Pit to EMR
	30 - 35:	Elevator Pit to EMR
	36 - 41:	Elevator Pit to EMR
	42 - 47:	Elevator Pit to EMR
	51 - 56:	Elevator Pit to EMR
	57 - 62:	Elevator Pit to EMR
	63 - 68:	Elevator Pit to EMR
	69 - 74:	Elevator Pit to EMR

Two World Trade Center

Shafts	5 & 48:	Elevator Pit to EMR
	10 & 11:	Elevator Pit to EMR
	14 & 15:	Elevator Pit to EMR
	24 - 29:	Elevator Pit to EMR
	30 - 35:	Elevator Pit to EMR
	36 - 41:	Elevator Pit to EMR
	42 - 47:	Elevator Pit to EMR
	51 - 56:	Elevator Pit to EMR
	57 - 62:	Elevator Pit to EMR
	63 - 68:	Elevator Pit to EMR
	69 - 74:	Elevator Pit to EMR

There is no asbestos-containing insulation material in the J and K elevator cars in 1 and 2 WTC.

There is no asbestos-containing insulation material with the elevator shafts in 4 and 5 WTC.

THE PORT AUTHORITY OF NEW YORK & NEW JERSEY

MEMORANDUM

TO: Phil Taylor-Supervising Engineer.
FROM: Pete Negrón
DATE: July 21, 1999
SUBJECT: Elevator Shaft Asbestos Assessment.
REFERENCE: Attached E-Mail
COPY TO: J. Amatuccio, D. Bobbitt, A. Burton, J. Castaldo, F. Riccardelli, L. Zucchi.

During the week of July 21, 1999, I inspected the elevator shafts to assess the condition of the fireproofing on the steel members.

The attached report includes the shaft number, floor and condition of fireproofing: intact or delaminated, and recommended action.

Floors not listed were inspected and found to be acceptable in that the fireproofing was intact.

In summary, of the 22 shafts inspected, shafts, which require full-scale abatement, are shafts 22/23A, 10B and 48B.

If you require further information regarding this report please contact me at 1.212.435.8364.


Pete Negrón
Associate Environmental Analyst
Operations & Maintenance Management
World Trade Center

Attachment

WORLD TRADE CENTER
ELEVATOR SHAFTS ASBESTOS ASSESSMENT

FLOOR	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
25	1A	NO	YES	24 S.F.	SEAL EDGES
26	1A	NO	YES	12 S.F.	SEAL EDGES
27	1A	NO	YES	30 S.F.	SEAL EDGES
28	1A	NO	YES	12 S.F.	SEAL EDGES
29	1A	NO	YES	48 S.F.	SEAL EDGES
SPRAY-ON MATERIAL					

FLOOR	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
9	2A	NO	YES	24 S.F.	SEAL EDGES
27	2A	NO	YES	4 S.F.	SEAL EDGES
28	2A	NO	YES	4 S.F.	SEAL EDGES
29	2A	NO	YES	4 S.F.	SEAL EDGES
30	2A	NO	YES	24 S.F.	SEAL EDGES
31	2A	NO	YES	24 S.F.	SEAL EDGES
34	2A	NO	YES	36 S.F.	SEAL EDGES
38	2A	NO	YES	6 S.F.	SEAL EDGES
SPRAY-ON MATERIAL					

2A

FLOOR	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
310	3A	NO	YES	72 S.F.	SEAL EDGES
5	3A	NO	YES	34 S.F.	SEAL EDGES
8	3A	NO	YES	48 S.F.	SEAL EDGES
9	3A	NO	YES	48 S.F.	SEAL EDGES
16	3A	NO	YES	30 S.F.	SEAL EDGES
17	3A	NO	YES	48 S.F.	SEAL EDGES
18	3A	NO	YES	48 S.F.	SEAL EDGES
19	3A	NO	YES	72 S.F.	SEAL EDGES
28	3A	NO	YES	48 S.F.	SEAL EDGES
34	3A	NO	YES	72 S.F.	SEAL EDGES
40	3A	NO	YES	6 S.F.	SEAL EDGES
SPRAYED-ON MATERIAL					

FLOOR	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
ALL	4A	YES	NO	NONR	NONE
CEMENTITIOUS MATERIAL					

FLOOR	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
ALL	5A	YES	NO	NONE	NONE
ALL	48A	YES	NO	NONE	NONE
CEMENTITIOUS MATERIAL					

Note: Delamination is fireproofing whether sprayed or troweled no longer present on the steel members.

WORLD TRADE CENTER
ELEVATOR SHAFTS ASBESTOS ASSESSMENT

FLOOR	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
22	8A	NO	YES	72 S.F.	SEAL EDGES
33	8A	NO	YES	48 S.F.	SEAL EDGES
36	8A	NO	YES	4 S.F.	SEAL EDGES
38	8A	NO	YES	48 S.F.	SEAL EDGES
39	8A	NO	YES	48 S.F.	SEAL EDGES
SPRAY-ON MATERIAL					

FLOOR	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
7	9A	NO	YES	2 S.F.	SEAL EDGES
13	9A	NO	YES	2 S.F.	SEAL EDGES
24	9A	NO	YES	3 S.F.	SEAL EDGES
31	9A	NO	YES	4 S.F.	SEAL EDGES
34	9A	NO	YES	6 S.F.	SEAL EDGES
36	9A	NO	YES	6 S.F.	SEAL EDGES
39	9A	NO	YES	48 S.F.	SEAL EDGES
41	9A	NO	YES	48 S.F.	SEAL EDGES
43	9A	NO	YES	48 S.F.	SEAL EDGES
SPRAYED-ON MATERIAL					

FLOOR	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
9	16A	NO	YES	24 S.F.	SEAL EDGES
25	16A	NO	YES	18 S.F.	SEAL EDGES
26	16A	NO	YES	28 S.F.	SEAL EDGES
27	16A	NO	YES	48 S.F.	SEAL EDGES
28	16A	NO	YES	24 S.F.	SEAL EDGES
CEMENTITIOUS MATERIAL					

FLOORS	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
ALL	17A	YES	NO	NO	NONE

FLOORS	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
ALL	18A	X	NO	NONE	NONE

Note: Delamination is fireproofing whether sprayed or troweled no longer present on the steel members.

WORLD TRADE CENTER
ELEVATOR SHAFTS ASBESTOS ASSESSMENT

FLOOR	SHAFT 1 WTC	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
8	19A	NO	YES	16 S.F.	SEAL EDGES
10	19A	NO	YES	24 S.F.	SEAL EDGES
11	19A	NO	YES	24 S.F.	SEAL EDGES
19	19A	NO	YES	48 S.F.	SEAL EDGES
25	19A	NO	YES	48 S.F.	SEAL EDGES
26	19A	NO	YES	48 S.F.	SEAL EDGES
28	19A	NO	YES	24 S.F.	SEAL EDGES
30	19A	NO	YES	24 S.F.	SEAL EDGES
32	19A	NO	YES	2 S.F.	SEAL EDGES
CEMENTITIOUS MATERIAL					

FLOOR	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
8	20A	NO	YES	12 S.F.	SEAL EDGES
10	20A	NO	YES	3 S.F.	SEAL EDGES
22	20A	NO	YES	3 S.F.	SEAL EDGES
23	20A	NO	YES	3 S.F.	SEAL EDGES
25	20A	NO	YES	36 S.F.	SEAL EDGES
26	20A	NO	YES	34 S.F.	SEAL EDGES
27	20A	NO	YES	26 S.F.	SEAL EDGES
28	20A	NO	YES	30 S.F.	SEAL EDGES
29	20A	NO	YES	28 S.F.	SEAL EDGES
SPRAYED-ON MATERIAL					

FLOOR	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
310	21A	NO	YES	24 S.F.	SEAL EDGES
2	21A	NO	YES	24 S.F.	SEAL EDGES
3	21A	NO	YES	24 S.F.	SEAL EDGES
9	21A	NO	YES	24 S.F.	SEAL EDGES
23	21A	NO	YES	24 S.F.	SEAL EDGES
29	21A	NO	YES	48 S.F.	SEAL EDGES
32	21A	NO	YES	6 S.F.	SEAL EDGES
SPRAYED-ON MATERIAL					

Note: Delamination is fireproofing whether sprayed or troweled no longer present on the steel members.

WORLD TRADE CENTER
ELEVATOR SHAFTS ASBESTOS ASSESSMENT

FLOOR	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
3	22A	NO	YES	4 S.F.	SEAL EDGES
4	22A	NO	YES	4 S.F.	SEAL EDGES
5	22A	NO	YES	4 S.F.	SEAL EDGES
6	22A	NO	YES	4 S.F.	SEAL EDGES
7	22A	NO	YES	4 S.F.	SEAL EDGES
8	22A	NO	YES	4 S.F.	SEAL EDGES
9	22A	NO	YES	4 S.F.	SEAL EDGES
10	22A	NO	YES	4 S.F.	SEAL EDGES
11	22A	NO	YES	4 S.F.	SEAL EDGES
12	22A	NO	YES	4 S.F.	SEAL EDGES
13	22A	NO	YES	4 S.F.	SEAL EDGES
14	22A	NO	YES	6 S.F.	SEAL EDGES
15	22A	NO	YES	4 S.F.	SEAL EDGES
16	22A	NO	YES	12 S.F.	SEAL EDGES
18	22A	NO	YES	6 S.F.	SEAL EDGES
19	22A	NO	YES	6 S.F.	SEAL EDGES
20	22A	NO	YES	6 S.F.	SEAL EDGES
21	22A	NO	YES	6 S.F.	SEAL EDGES
22	22A	NO	YES	6 S.F.	SEAL EDGES
23	22A	NO	YES	6 S.F.	SEAL EDGES
24	22A	NO	YES	6 S.F.	SEAL EDGES
25	22A	NO	YES	6 S.F.	SEAL EDGES
26	22A	NO	YES	8 S.F.	SEAL EDGES
27	22A	NO	YES	6 S.F.	SEAL EDGES
28	22A	NO	YES	48 S.F.	SEAL EDGES
29	22A	NO	YES	6 S.F.	SEAL EDGES
30	22A	NO	YES	6 S.F.	SEAL EDGES
31	22A	NO	YES	6 S.F.	SEAL EDGES
32	22A	NO	YES	6 S.F.	SEAL EDGES
33	22A	NO	YES	6 S.F.	SEAL EDGES
34	22A	NO	YES	6 S.F.	SEAL EDGES
35	22A	NO	YES	4 S.F.	SEAL EDGES
36	22A	NO	YES	6 S.F.	SEAL EDGES
37	22A	NO	YES	6 S.F.	SEAL EDGES
38	22A	NO	YES	6 S.F.	SEAL EDGES
39	22A	NO	YES	24 S.F.	SEAL EDGES
40	22A	NO	YES	8 S.F.	SEAL EDGES
41	22A	NO	YES	8 S.F.	SEAL EDGES
42	22A	NO	YES	8 S.F.	SEAL EDGES
43	22A	NO	YES	8 S.F.	SEAL EDGES
44	22A	NO	YES	8 S.F.	SEAL EDGES
45	22A	NO	YES	8 S.F.	SEAL EDGES
46	22A	NO	YES	8 S.F.	SEAL EDGES
47	22A	NO	YES	8 S.F.	SEAL EDGES
48	22A	NO	YES	2 S.F.	SEAL EDGES
49	22A	NO	YES	6 S.F.	SEAL EDGES
50	22A	NO	YES	2 S.F.	SEAL EDGES
51	22A	NO	YES	4 S.F.	SEAL EDGES
52	22A	NO	YES	4 S.F.	SEAL EDGES
54	22A	NO	YES	4 S.F.	SEAL EDGES
55	22A	NO	YES	2 S.F.	SEAL EDGES
56	22A	NO	YES	48 S.F.	SEAL EDGES
58	22A	NO	YES	3 S.F.	SEAL EDGES
62	22A	NO	YES	2 S.F.	SEAL EDGES
64	22A	NO	YES	2 S.F.	SEAL EDGES
67	22A	NO	YES	2 S.F.	SEAL EDGES

Note: Delamination is fireproofing whether sprayed or troweled no longer present on the steel members.

WORLD TRADE CENTER
ELEVATOR SHAFTS ASBESTOS ASSESSMENT

FLOOR	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
70	22A	NO	YES	3 S.F.	SEAL EDGES
73	22A	NO	YES	2 S.F.	SEAL EDGES
78	22A	NO	YES	2 S.F.	SEAL EDGES
SPRAYED-ON MATERIAL		ABATEMENT OF SHAFT IS RECOMMENDED			

FLOOR	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
16	23A	NO	YES	2 S.F.	SEAL EDGES
17	23A	NO	YES	2 S.F.	SEAL EDGES
18	23A	NO	YES	2 S.F.	SEAL EDGES
19	23A	NO	YES	2 S.F.	SEAL EDGES
20	23A	NO	YES	2 S.F.	SEAL EDGES
21	23A	NO	YES	2 S.F.	SEAL EDGES
22	23A	NO	YES	2 S.F.	SEAL EDGES
23	23A	NO	YES	2 S.F.	SEAL EDGES
24	23A	NO	YES	2 S.F.	SEAL EDGES
25	23A	NO	YES	2 S.F.	SEAL EDGES
26	23A	NO	YES	2 S.F.	SEAL EDGES
27	23A	NO	YES	2 S.F.	SEAL EDGES
28	23A	NO	YES	2 S.F.	SEAL EDGES
29	23A	NO	YES	2 S.F.	SEAL EDGES
30	23A	NO	YES	2 S.F.	SEAL EDGES
31	23A	NO	YES	2 S.F.	SEAL EDGES
32	23A	NO	YES	2 S.F.	SEAL EDGES
33	23A	NO	YES	2 S.F.	SEAL EDGES
34	23A	NO	YES	2 S.F.	SEAL EDGES
35	23A	NO	YES	2 S.F.	SEAL EDGES
36	23A	NO	YES	2 S.F.	SEAL EDGES
37	23A	NO	YES	2 S.F.	SEAL EDGES
73	23A	NO	YES	1 S.F.	SEAL EDGES
SPRAYED-ON MATERIAL		ABATEMENT OF SHAFT IS RECOMMENDED			

Note: Delamination is fireproofing whether sprayed or troweled no longer present on the steel members.

WORLD TRADE CENTER
ELEVATOR SHAFTS ASBESTOS ASSESSMENT

FLOOR	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
3	10B	NO	YES	6 S.F.	SEAL EDGES
4	10B	NO	YES	6 S.F.	SEAL EDGES
7	10B	NO	YES	8 S.F.	SEAL EDGES
12	10B	NO	YES	1 S.F.	SEAL EDGES
15	10B	NO	YES	2 S.F.	SEAL EDGES
19	10B	NO	YES	20 S.F.	SEAL EDGES
20	10B	NO	YES	15 S.F.	SEAL EDGES
21	10B	NO	YES	26 S.F.	SEAL EDGES
22	10B	NO	YES	28 S.F.	SEAL EDGES
23	10B	NO	YES	15 S.F.	SEAL EDGES
25	10B	NO	YES	48 S.F.	SEAL EDGES
28	10B	NO	YES	4 S.F.	SEAL EDGES
29	10B	NO	YES	2 S.F.	SEAL EDGES
31	10B	NO	YES	2 S.F.	SEAL EDGES
34	10B	NO	YES	48 S.F.	SEAL EDGES
35	10B	NO	YES	48 S.F.	SEAL EDGES
36	10B	NO	YES	34 S.F.	SEAL EDGES
37	10B	NO	YES	24 S.F.	SEAL EDGES
39	10B	NO	YES	48 S.F.	SEAL EDGES
40	10B	NO	YES	48 S.F.	SEAL EDGES
SPRAYED-ON MATERIAL		ABATEMENT OF SHAFT IS RECOMMENDED			

FLOOR	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
5	11B	NO	YES	1 S.F.	SEAL EDGES
12	11B	NO	YES	1 S.F.	SEAL EDGES
19	11B	NO	YES	2 S.F.	SEAL EDGES
26	11B	NO	YES	2 S.F.	SEAL EDGES
31	11B	NO	YES	48 S.F.	SEAL EDGES
33	11B	NO	YES	2 S.F.	SEAL EDGES
40	11B	NO	YES	2 S.F.	SEAL EDGES
SPRAYED-ON MATERIAL					

FLOOR	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
ALL	5B	YES	NO	NONE	NONE
ALL	48B	NO	YES	***	ABATEMENT
48B SHAFT-SPRAYED-ON FIREPROOFING					
*** 1' - FOOT STRIP ALONG LENGTH OF COLUMN MISSING					

Note: Delamination is fireproofing whether sprayed or troweled no longer present on the steel members.

WORLD TRADE CENTER
ELEVATOR SHAFTS ASBESTOS ASSESSMENT

FLOOR	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
3	14B	NO	YES	2 S.F.	SEAL EDGES
4	14B	NO	YES	2 S.F.	SEAL EDGES
8	14B	NO	YES	1 S.F.	SEAL EDGES
9	14B	NO	YES	1 S.F.	SEAL EDGES
10	14B	NO	YES	1 S.F.	SEAL EDGES
11	14B	NO	YES	1 S.F.	SEAL EDGES
12	14B	NO	YES	1 S.F.	SEAL EDGES
13	14B	NO	YES	1 S.F.	SEAL EDGES
14	14B	NO	YES	1 S.F.	SEAL EDGES
15	14B	NO	YES	1 S.F.	SEAL EDGES
16	14B	NO	YES	1 S.F.	SEAL EDGES
17	14B	NO	YES	1 S.F.	SEAL EDGES
18	14B	NO	YES	1 S.F.	SEAL EDGES
23	14B	NO	YES	1 S.F.	SEAL EDGES
24	14B	NO	YES	1 S.F.	SEAL EDGES
25	14B	NO	YES	1 S.F.	SEAL EDGES
26	14B	NO	YES	1 S.F.	SEAL EDGES
27	14B	NO	YES	1 S.F.	SEAL EDGES
28	14B	NO	YES	1 S.F.	SEAL EDGES
SPRAYED-ON MATERIAL					

FLOOR	SHAFT	FIREPROOFING INTACT	DELAMINATION	QUANTITY DELAMINATED	RECOMMENDATION
310	15B	NO	YES	4 S.F.	SEAL EDGES
3	15B	NO	YES	2 S.F.	SEAL EDGES
4	15B	NO	YES	4 S.F.	SEAL EDGES
22	15B	NO	YES	1 S.F.	SEAL EDGES
25	15B	NO	YES	8 S.F.	SEAL EDGES
SPRAYED-ON MATERIAL					

Note: Delamination is fireproofing whether sprayed or troweled no longer present on the steel members.

THE PORT AUTHORITY OF NY & NJ

MEMORANDUM

TO: C. Bonacci, F. DeMartini, G. Meyer, T. Lynch, L. Menno,
E. Monteverde, R. Muessig, K. Piatt, N. Seliga, T. Sheehan
FROM: Leandro Zucchi
DATE: December 13, 1999
SUBJECT: **WORLD TRADE CENTER ASBESTOS ABATEMENT PROJECTS.**

COPY TO: L. Ardizzone, J. Castaldo, R. Benacchio, W. Devlin, W. Hamann,
D. Karpiloff, T. Kobel, P. Negron, F. Riccardelli, J. Richardson, H. Ret,
E. Strauss, P. Taylor, F. Varriano

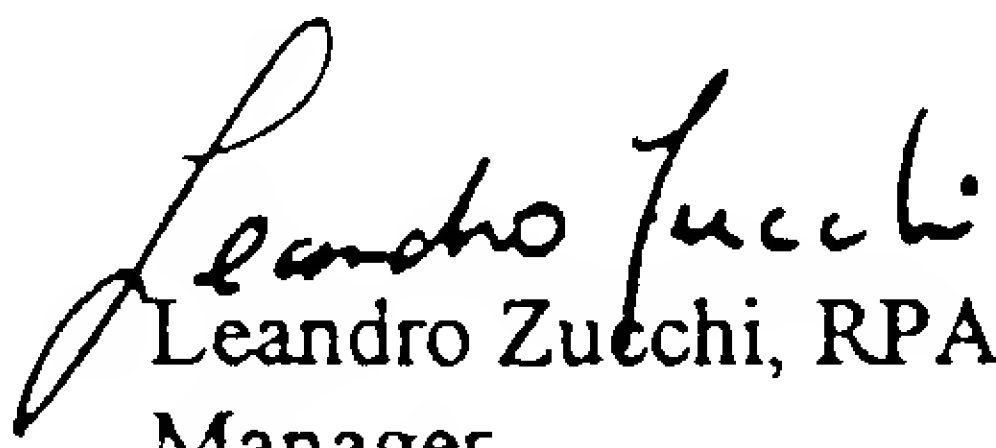
As you may already know, the World Trade Department's Call-in asbestos abatement contract with Asbestos Containment Services Incorporated (ASCI) expired on December 3, 1999. The new World Trade Center Call-in asbestos abatement contract, WTC 115.300, will be administered by Environmental Construction Division of the Engineering Department. The new contractor is Comprehensive Environmental of New York (CENY).

In order to ensure a smooth transition we have established the following guidelines:

1. Requests for asbestos surveys, bulk sampling, and air sampling should be submitted to Pete Negron. Pete will investigate and respond accordingly.
2. Abatement projects in support of tenant lease requirements and negotiations should be addressed as follows:
 - Requests for abatement work should be submitted in writing to Pete Negron for transmittal to the Engineering Department.
 - To expedite the process, each project request should include:
 - A site drawing indicating the building, floor, work site boundary, and suite number;
 - A scope of work;
 - A demolition and renovation drawing and schedule;
 - Time allocated (start and completion dates) for asbestos abatement;
 - A charge code;
 - Contact person to arrange access;
 - Pete Negron will coordinate the work through the Engineering Department and keep you informed of its progress.

Please note that experience has shown that vinyl asbestos floor tile (VAT) projects up to 10,000 square feet requires five (5) days to perform the abatement; from 10,000 to 30,000 square feet requires ten (10) days; and full floors require fifteen (15) days. In addition to the time required to complete a VAT removal project, fifteen (15) days advanced notice is required to: (1) collect the required bulk samples; (2) notify tenants on, above and below the abatement floor of the project; (3) notify the regulatory agencies, and (4) design the project. Therefore, we recommend that you consider these factors prior to establishing your schedule.

Should you have any questions, please feel free to contact Pete Negron or me at 435-8364 or 435-5798 respectively. Meanwhile, I thank you for your attention to this matter.


Leandro Zucchi, RPA
Manager
Operations & Maint. Mgmt.

/lb

- SECTION FIVE -

ASBESTOS RECORDS

I. Asbestos Disclosure:

The attached disclosure memorandum identifies the known locations of asbestos-containing building materials in the World Trade Center, excluding Six World Trade Center.

The information contained in this disclosure memorandum (bulk sampling locations and results) were obtained from The Port Authority of NY & NJ Engineering, and Law Departments' files.

II. Project Files:

Full floor and Call-in contract asbestos abatement project files can be found in the Supervising Engineer's Office in 2 World Trade Center, Suite 3520.

III. Quantities of Asbestos Removed and Remaining:

Vinyl Asbestos Floor Tile

A total of seven (7) million square feet of vinyl asbestos floor tile (VAT) was installed in the World Trade Center at the time of its construction (the Port Authority Law Department's Asbestos Litigation Task Force discovered a purchase order and verification of receipt for the VAT installation). According to Task Force records, as of September 1, 2000, a total of 3,381,529 square feet of VAT was removed. Based upon these figures, an additional 3.5 million square feet of VAT remains.

Sprayed-on Asbestos Fireproofing

According to Task Force records, a total of 2,184,038 square feet of asbestos-containing fireproofing was removed from the World Trade Center. Though there is no estimate as to how much sprayed-on asbestos fireproofing remains, the World Trade Department's Disclosure Memorandum identifies those existing asbestos-containing locations.

APPENDIX H-7.5

Asbestos Due Diligence Request for Information



October 18, 2000

R. W. Crandlemere & Associates
549 Columbian Street
Suite 305
Weymouth, MA 02190

RE: ASBESTOS DUE DILIGENCE: INFORMATION REQUEST.

Dear Mr. Crandlemere:

Please find attached the responses to your October 12, 2000 fax wherein you requested that the available asbestos information be broken down into seven areas. In addition, responses to your general information requests are also provided.

Request: Total remaining and total removed ACM, broken down by material types and locations, within the designated areas as much as practical (e.g. by floor number or other description; such as within pipe chase or the elevator shafts).

The attached breakdowns for 1 WTC, 2 WTC, 4 WTC, 5 WTC, MERs, Subgrade, and Concourse disclose the estimated amounts of asbestos-containing sprayed-on fireproofing and thermal system insulation material present. Drawings identifying these asbestos locations by sample number are on file in my office. Attachments disclosing the amounts of vinyl asbestos floor tiles present as of April, 2000 are also included. These estimates were provided by the Port Authority's Engineering Department, Asbestos Litigation Task Force, and the World Trade Department.

Asbestos-containing roofing material was removed from the MER set-backs in 1 and 2 World Trade Center, and the roofs of 4 and 5 World Trade Center. The roofs of 1 and 2 World Trade Center were not sampled.

Request: The abatement costs for work performed and anticipated future abatement costs for each type of remaining known ACM.

From 1986 to 1999, a total thirty one (31) contracts were bid, and a total of \$58.2 million dollars was spent in abatement projects. The Engineering Department estimates the cost for vinyl asbestos floor tile removal to be between \$5 - \$6 per square foot, sprayed-on removal to be between \$20 - \$25 per square foot, and thermal system insulation to be \$15 per linear foot (outer diameter dependant).

As of September, 2000, a total of 2,184,038 million square feet of sprayed-on fireproofing, and 3,500,000 million square feet of vinyl asbestos floor tile was removed. According to PA records, a total of seven million square feet of vinyl asbestos floor tiles were installed in the World Trade Center.

Request: Materials determined not to be ACM (e.g. spline ceilings, hung ceilings, wallboard, wallboard joint compound, etc., as well as areas of sprayed-on fireproofing determined not to be ACM).

Sampling of the building materials noted above did not disclose the presence of asbestos.

Request: Any materials that are assumed to be ACM (such as fire doors) with an estimate, if possible, of the amounts of each material.

Our presumption as to the types of asbestos-containing building materials within the World Trade Center did not include fire doors. Based upon sample data, asbestos containing building materials appear to be limited to sprayed-on fireproofing, thermal system insulation, and floor tiles and mastic.

Request: Asbestos litigation status.

Your information request has been forwarded to the Port Authority's Law Department. We will notify you accordingly.

The following information is in response to your fax dated
Wednesday, October 18th.

Request: PCB-containing Hydraulic Fluid.

The hydraulic fluid (hydraulic oil # 32 AW) leaking from elevator FE-5, located on the B4 Level of 1 World Trade Center does not contain PCB. I have a copy of the Material Safety Data Sheet from the distributor; Consumers Oil, 515 South First Avenue, Mt. Vernon, N.Y.. Hydraulic elevator FE - 6 in 2 World Trade Center also uses hydraulic oil # 32 AW.

Relating to the trash compactors, please note that the hydraulic fluid is ordered through the Port Authority Stockroom from an approved list of chemical products established by the Inspection & Safety Division. The hydraulic fluid used for the trash compactors is either mineral or vegetable based. Both are non-PCB products.

Request: Additional Information Regarding Radio-Frequency Testing.

I do not have a copy of, nor do I have knowledge of the March ,1999 report prepared by Denny & Associates recommending additional RF exposure monitoring. All radio-frequency documents are available for your review in the Document Room.

Please contact me at (212) 435-8507 should you have any questions or require additional information.



Phil Taylor
World Trade Operations &
Maintenance Management

Cc: J. Connors, A. Reiss, L. Zucchi

1 W 1 C

Excluding MERs, Truckdock, and Subgrade Locations

<u>Location</u>	<u>Floors</u>	<u>Amount</u>
Forty three floors with less than 160 sqft of sprayed-on fireproofing*:	1 st - 40 th floor Electric Closets, 36 th Floor Perimeter Electric Closet, 82 nd Floor 104 th Floor	6,888 sqft
* Classified as "Random Locations On Floor" in WTC Disclosure Memorandum		
Six floors with less than 10 sqft of cementitious insulation behind convector units*:	77 th , 79 th , 88 th , 101 st , 103 rd , and 105 th Floors	60 sqft
* Classified as "Convector Units" in the WTC Disclosure Memorandum		
Full Floor Locations*:		
Five core floors with 12,000sqft of sprayed-on fireproofing:	1 st , 2 nd , 3 rd , 4 th , and 5 th Floors	60,000 sqft
6 th Floor Plus Catwalk		43,000 sqft
Lobby Mezzanine		15,000 sqft
* Classified as "Full Floor Locations" in the WTC Disclosure Memorandum		
PA Café Kitchen Exhaust Duct	43 rd - 44 th Floor	1,000 lnft
Thermal System Insulation On Vertical Steam Line:	B6 - 108 th Floor	1,430 lnft

2 WTC

Excluding MERs, Truckdock, Subgrades, and Elevator Shafts

<u>Location</u>	<u>Floors</u>	<u>Amount</u>
-----------------	---------------	---------------

Nine floors with less than 160 sqft of sprayed-on fireproofing*:	Lobby Mezzanine, 7/8 MER, 9 th , 19 th , 20 th , 26 th , 33rd, 71 st , 75/76 MER	1,440 sqft
--	---	------------

* Classified as "Random Locations On Floor" in WTC Disclosure Memorandum

Nine floors with less than 10 sqft of cementitious insulation behind convector units*:	22 nd , 24 th , 59 th , 72 nd , 79 th , 81 st , 84 th , 86 th , 87 th Floors	90 sqft
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* Classified as "Convector Units" in the WTC Disclosure Memorandum

Full Floor Locations*:

Four floors with 5,000 sqft of sprayed-on fireproofing:	10 th -- 13 th Floors	20,000 sqft
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6th Floor Plus Catwalk

43,000 sqft

* Classified as "Full Floor Locations" in the WTC Disclosure Memorandum

Tenant Kitchen Exhaust Duct

43rd -- 44th Floors

1,000 lnft

Suspect Thermal System Insulation On Vertical Steam Line:

B6 - 108th Floor

1,430 lnft

4 WTC

Excluding MERs, Truckdock, Subgrades, and Elevator Shafts

<u>Location</u>	<u>Floors</u>	<u>Amount</u>
-----------------	---------------	---------------

There is no sprayed-on fireproofing in 4 WTC.

Thermal system insulation is in the form of pipe saddles in 4 WTC. Quantities not determined.

5 WTC

Excluding MERs, Truckdock, Subgrades, and Elevator Shafts

<u>Location</u>	<u>Floors</u>	<u>Amount</u>
-----------------	---------------	---------------

There is no sprayed-on fireproofing in 4 WTC.

Thermal system insulation is in the form of pipe saddles in 4 WTC. Quantities not determined.

A cementitious patch of less than 160 sqft exists on a beam in the south wing of the southwest portion of the 5th floor in 5 WTC.

1, 2, 4, and 5 WTC

Mechanical Equipment Rooms

1 WTC:

7 th / 8 th Floor MER	25,000 sqft of sprayed-on / TSI present but quantity unknown
41 st / 42 nd Floor MER	25,000 sqft of sprayed-on / “ “ “ “ “
75 th / 76 th Floor MER	25,000 sqft of sprayed-on / “ “ “ “ “
108 th / 109 th Floor MER	25,000 sqft of sprayed-on / “ “ “ “ “

TOTAL: 100,000 sqft of sprayed-on / TSI quantity unknown*

* Non-fiberglass wrapped piping components, such as elbows, fittings, and flanges contain asbestos.

2 WTC:

41 st / 42 nd Floor MER	25,000 sqft of sprayed-on / TSI present but quantity unknown
---	--

TOTAL: 25,000 sqft of sprayed-on / TSI quantity unknown*

* Non-fiberglass wrapped piping components, such as elbows, fittings, and flanges contain asbestos.

4 WTC:

Non-ACM

5 WTC:

Non-ACM

1, 2, 4, and 5 WTC

SUBGRADES and TRUCKDOCK

Subgrades -

1 WTC:

B1 Level – Core, and N/E Quadrant 5,000 sqft / No TSI

B6 Level – Entire Level 40,000 sqft / No TSI

TOTAL: 45,000 sqft / No TSI

2, 4, and 5 WTC: No ACM

Truckdock -

Main Truckdock 50,000 sqft

PLAZA and CONCOURSE

There is no sprayed-on asbestos containing fireproofing on the Plaza or Concourse (Mall).

There is approximately 500 lnft of TSI in the plenum of the Concourse (Mall) ceiling.

Vinyl asbestos floor tiles may however be present in some of the retail stores.

1, 2, 4, and 5 WORLD TRADE CENTER

VINYL ASBESTOS FLOOR TILES

Amount Remaining in 1 WTC:	710,677 sqft
Amount Remaining in 2 WTC:	1,734,032 sqft
Amount Remaining in 4 WTC:	241,000 sqft
Amount Remaining in 5 WTC:	167,515 sqft

These
have not been
May '97.

WTC 4
VAT ABATEMENT STATUS DIAGRAM

4WTC FLOORS	TOTAL VAT Installation area	ABATED Sq Ft VAT IN CLAIM	JOB NUMBERS IN CLAIM	ABATED Sq Ft VAT NOT IN CLAIM	JOB NUMBERS NOT IN CLAIM	REMAINING Sq Ft VAT ON FLOOR	4WTC FLOORS
9	30,000	11,000	116.047			19,000	9
8	60,000					60,000	8
7	60,000	36,600	116.004 / 049 / 065			23,400	7
6	5,000	5,000	116.004 / 005			-	6
5	60,000	40,000	116.066 / 117			20,000	5
4	5,000					5,000	4
3	60,000	4,000	116.057			56,000	3
PLAZA	10,000	200	116.064			9,800	PLAZA
CONCOURSE	30,000					30,000	CONCOURSE
B1 Level	25,000	7,200	116.103 / 106 / 120			17,800	B1 Level
B2 Level	0						B2 Level
TOTALS	255,000	104,000.00				241,000	TOTALS

WTC 5						
VAT ABATEMENT STATUS DIAGRAM						
5WTC FLOORS	ABATED Sq Ft VAT IN CLAIM	JOB NUMBERS IN CLAIM	ABATED Sq Ft VAT NOT IN CLAIM	JOB NUMBERS NOT IN CLAIM	REMAINING Sq Ft VAT ON FLOOR	5WTC FLOORS
8	16,222.00	812			17,314.00	8
7					-	7
6					69,359.00	6
5					77,504.00	5
4					-	4
3					-	3
PLAZA					3,338.00	PLAZA
CONCOURSE						CONCOURSE
TOTALS	16,222.00				167,515.00	

WTC 2
VAT ABATEMENT STATUS DIAGRAM

	ZWTC FLOORS	ALTF Sampled	TOTAL VAT Installation area	ABATED Sq Ft VAT IN CLAIM	CONTRACT NUMBERS	JOB NUMBERS IN CLAIM	ABATED Sq Ft VAT NOT IN CLAIM	JOB NUMBERS NOT IN CLAIM	REMAINING Sq Ft VAT ON FLOOR	ZWTC FLOORS
	110									110
	109 MER									109 MER
	108 MER									108 MER
	107		35,900						1,018	107
	106		35,900						36,076	106
	105		35,900		115 224	115 283			36,424	105
	104		35,900		115 224	115 283	2,000	915	35,527	104
	103		35,900		115 224	115 283			36,423	103
	102		35,900		115 224	115 283	500		35,467	102
	101	YES	35,467				35,467	965		101
	100				115 295		2,801	115 195	-2,801	100
	99		35,900	18,357	115 295	185	1000,3300	824,825	31,600	99
	98		35,900						35,900	98
	97		35,900	7,000	115 510	975	2,000	975		97
	96	YES	35,900	5,900	115 510	955	3,100	955	3,664	96
	95		35,900						35,900	95
	94		35,900							94
	93		35,900							93
	92	YES	36,846	36,846	115 295	115 153			36,846	92
	91		35,900						36,742	91
	90	YES	36,742	36,742	115 224	115 8462				90
	89		35,900	35,900	115 295	116 055				89
	88		35,900	35,900	115 295	116 072				88
	87		35,900	35,900	115 224,295	115 746,141				87
	86		35,900	35,900	115 295	116 018				86
	85		35,900						35,905	85
	84	YES	35,900	34,414	115 224	255			1,486	84
	83	YES	35,900		115 295		16,700	377	15,662	83
	82		35,900						32,349	82
	81		35,900						33,513	81
	80		35,900						32,867	80
	79		35,900						22,821	79
	78	YES	35,900	11,000,120,000	115 510,115 295	213,1155			20,695	78
	77		35,900						24,597	77
	76 MER									76 MER
	75 MER		3,007	2,507	115 295,802,071	115 112,115 291		500		75 MER
	74		34,578				34,578	234		74
	73		34,578						34,219	73
	72		34,578						34,219	72
	71		34,578						35,155	71
	70		34,578						35,155	70
	69		34,578						34,268	69
	68		34,578						34,268	68
	67		34,578						34,268	67
	66		34,578						31,845	66
	65		34,578						34,268	65
	64		34,578						34,268	64
	63		34,578						33,504	63
	62		34,578						33,504	62
	61		34,578	3,200	115 295	170			27,008	61
	60		34,578						34,578	60
	59		34,578						33,381	59
	58	YES	34,578	33,381	115 510	955			1,197	58
	57	YES	34,578	32,561	115 510	205			2,017	57
	56		34,578						32,561	56
	55	YES	34,578	14,000	115 224	257			20,170	55
	54		34,578	1,080	115 295	116 020			31,970	54
	53		34,578						33,050	53
	52		34,578						33,050	52
	51		34,578						33,050	51
	50		34,578				4,385	308	19,342	50
	49		34,578						33,050	49
	48	YES	24,000	24,000	115 510	215				48
	47	YES	24,000	24,000	115 510	215				47
	46		34,578						31,493	46
	45		34,578						31,052	45
	44		34,578						12,548	44
	43									43
	42 MER								0	42 MER
	41 MER								0	41 MER
	40		32,890	32,890	115 295	116 200				40
	39		32,890						33,695	39
	38	YES	32,890	22,500	115 295	185,198,170,169			10,397	38
	37		32,890	32,890	115 300	116 132,141,142,144				37
	36	YES	32,675	32,675	115 510	115 220				36
	35	YES	32,890	13,500	115 510	115 215			18,276	35
	34		32,890	2,420	115 295	116 042,054,073,096			30,470	34
	33	YES	32,890	24,000	115 510,115 295	930,975,210,205			8,890	33
	32		32,890	32,600	115 295,115 300	115 181,116 146			290	32
	31	YES	32,890	32,890	115 295	115 179				31
	30		32,890	650	115 295	116 040			18,100	30
	29		32,890						27,208	29
	28		32,890	7,716	115 295	116 024,038,060	3,000	805	25,059	28
	27		32,890	15,700	115 295	757,882,108		882,802	14,929	27
	26	YES	32,890	32,890	115 295	116 094,115 787	1,500			26
	25		32,890	27,890	115 295	116 059	5,000	957,826		25
	24	YES	32,890	32,390	115 510	289,953,971	500	322,958	0	24
	23	YES	32,890	32,390	115 510	953,971	890	958	0	23
	22	YES	32,890	11,876	115 510,115 295	115 849,116	500	964	14,024	22
	21	YES	32,890	12,000	115 510	907			18,835	21
	20		32,890						100	20
	19		32,890						850	19
	18	YES	32,890	17,000	115 510	981,293,916	350	891	15,275	18
	17		32,890						29,070	17
	16		32,890						1,882	16
	15	YES	32,890	13,500	115 510	348	750	338	17,459	15
	14		32,890						4,135	14
	13								0	13
	12								0	12
	11				115 510		80	216	-80	11
	10						3,200	217,218	-3,200	10
	9						275	161	-275	9
	8 MER									8 MER
	7 MER									7 MER
	6		1700						1726	6
	5		1700						2365	5
	4		1700						2841	4
	3		1700						2033	3
	PLAZA		1700		115 295	115 191	1,400		0	PLAZA
	CONCOURSE								0	CON
	B1		12000				2,000	349	10000	B1
	B2		12000	3,200	115 295	116 107			8800	B2
	B3		12000				800	335	11200	B3
	B4		12000	6,000	115 295	116 067	800	804	5200	B4
	B5								0	B5
	B6								0	B6
	TOTALS:		3,076,432	644,988			116,987		1,734,032	

* Areas not part of lawsuit

* Abated areas

AS OF 9/1/00

Last updated April 2000

WTC 1
VAT ABATEMENT STATUS DIAGRAM

	1WTC FLOORS	TOTAL Installation area	ABATED Sq Ft VAT IN CLAIM	JOBNUMBERS IN CLAIM	ABATED Sq Ft VAT NOT IN CLAIM	JOBNUMBERS NOT IN CLAIM	REMAINING Sq Ft VAT ON FLOOR	1WTC FLOORS
	110							110
	109 MER		600.00	116 075				109 MER
	108 MER							108 MER
	107	35900	35,780.00	115	121	272		107
	106	35900	2,400.00	115 978 / 115 124			13535	106
	105	35900					24335	105
	104	35900	608.00	116 095, 123			31057	104
	103	35900						103
	102	35900	30,000.00	115 742 / 116 092			3025	102
	101	35900	4,000.00	116 052			30065	101
	100	35900	35,900.00	116 014				100
	99	35900					34065	99
	98	35900	35,900.00	116 008				98
	97	35900					33835	97
	96	35900	35,900.00	116 002			35247	96
	95	35900					35215	95
	94	36215	36,215.00	211				94
	93	35900						93
	92	36215	36,215.00	211				92
	91	35900	16,480.00	115 980 / 116 111		372	15683	91
	90	35900	25,600.00	743, 744, 817, 984	750	325	4974	90
	89	35900	1,200.00	895			21655	89
	88	22891	18,391.00	116 072	4500	814		88
	87	35900	4,500.00	116 065	1000	751	20458	87
	86	35900					32395	86
	85	35900	8,060.00	115 778 / 116 079, 100			26491	85
	84	35900	10,000.00	937			23943	84
	83	35900	9,000.00	116 058			17987	83
	82	35900					30104	82
	81	35900	35,900.00	115 214 / 116 083				81
	80	35900			250		30185	80
	79	35900	7,000.00	115 902 / 116 115		911	22863	79
	78	35900	30,000.00	250				78
	77	35900	10,100.00	944, 945	57	955	3825	77
	76 MER							76 MER
	75 MER							75 MER
	74							74
	73							73
	72				244	965		72
	71				2550	319, 357		71
	70							70
	69							69
	68				3100	957		68
	67							67
	66							66
	65							65
	64							64
	63				2000	830		63
	62							62
	61							61
	60				34578	749		60
	59							59
	58							58
	57							57
	56							56
	55							55
	54	34578	3,500.00	116 045			27421	54
	53	34578	2,131.00	116 053			13346	53
	52	34578			1000	767	28964	52
	51	34578	15,000.00	116 067, 152	250	813	16170	51
	50	34578						50
	49							49
	48							48
	47							47
	46	34578	18,500.00	115 350, 890, 897 / 116 061			9097	46
	45	34578	20,000.00	926			15477	45
	44				6600	323, 851	28964	44
	43							43
	42 MER							42 MER
	41 MER							41 MER
	40							40
	39	32890					30483	39
	38	32890	18,000.00	923, 972			15134	38
	37	32875	32,675.00	251, 786				37
	36	32890			32675	236		36
	35	32890			32675	235		35
	34	32890			32675	244		34
	33	32890	31,498.00	274, 896				33
	32	32890						32
	31	32890	31,836.00	266				31
	30	32890	31,836.00	273				30
	29	32890	31,836.00	245, 732				29
	28	32890	31,836.00	265				28
	27	32890	31,836.00	272				27
	26	32890	31,290.00	252				26
	25	32890	31,290.00	271				25
	24	32890	30,290.00	264	500	958		24
	23	32890	30,290.00	253	500	958		23
	22	32890	31,290.00	850, 970				22
	21	32890			32890	238		21
	20	32890	31,290.00	269				20
	19	32890	32,890.00	115				19
	18	32890	30,972.00	254				18
	17	32890	30,972.00	268, 849				17
	16	32890			30972	233		16
	15	32890	30,972.00	267				15
	14	32890	30,972.00	280		908		14
	13	32890	30,972.00	281				13
	12	32890	30,972.00	250				12
	11	32890			30972	221		11
	10	32890			30972	221		10
	9	32890			30972	240		9
	8 MER							8 MER
	7 MER							7 MER
	6	1765			1700	316	65	6
	5	2634					2634	5
	4	2522					2522	4
	3	2609					2609	3
	PLAZA	1058					1058	PLAZA
	CONCOURSE	11000	10,500.00	116 102			500	CON
	B1	8500	3,000.00	116 051			5500	B1
	B2	13400	13,400.00	116 048, 050, 133				B2
	B3	12000	4,470.00	116 013, 089, 097			7530	B3
	B4	12000	3,000.00	116 103			9000	B4
	B5							B5
	B6	2000	1,750.00	116 077			250	B6
	TOTAL =	2,431,430.00	1,170,815.00		314,945.00		710,677.00	

* Areas not part of Allied suit

= Abated Areas

Last updated Apr. 1 200

R. W. CRANDLEMERE & ASSOCIATES, INC.
PROTECTING BUSINESS AND THE ENVIRONMENT

November 29, 2000

Merritt & Harris, Inc.
Attn: Mr. Robert G. Weiland, R.A.
110 East 42nd Street
New York, NY 10017

Re: Environmental Site Assessment – World Trade Center
Follow-Up Information Regarding U.S. EPA Listings
Project No. 000095; Merritt & Harris, Inc. #20-251E

Gentlemen:

This letter report presents the results of our Freedom of Information (FOI) requests to the U.S. Environmental Protection Agency (U.S. EPA) Region 2 at 290 Broadway, New York, NY.

This report is intended to supplement our report titled “ASTM E1527-97 Phase I Environmental Site Assessment, One, Two, Four & Five World Trade Center, New York City, NY 10081” dated November 7, 2000. In Section 4.2.1, Federal Regulatory Review, we reported the following:

A search of the CERCLIS List maintained by the U.S. EPA for locations within a 0.25-mile radius of the Site revealed the following listings:

- 6 World Trade Center Room 114, located in the US Customs Building on the corner of West and Vesey Streets (not specifically included as part of the subject Site, however, the uses of this building are considered as on-Site uses due to the physical presence of the building on the lot that comprises the subject Site.), is listed as:

CERCLIS #NY4470002433, identified as US Customs SCC/Merchandise Control, 6 World Trade Center, Room 114; listed with a Discovery period ending 1/10/89 and a Preliminary assessment period ending 9/27/89. A status of No Further Remedial Action Planned (NFRAP) has been assigned by the EPA for this case.

- 55 Liberty Street, Radium Luminous Materials Co., located approximately 0.14 mile southeast of the subject Site is listed as CERCLIS #NYD987001443 having a State funded Discovery period ending 5/5/92 and an EPA Funded Preliminary Assessment ending 2/11/93 with No Further Remedial Action Planned, assigned status NFRAP.

Under the Freedom of Information Act, a written request was made to review records maintained by the U.S. EPA Region 2 at 290 Broadway, NY, NY. The Freedom of Information (FOI) request was assigned Request Identification Number 02-RIN-02381-00 on September 28, 2000.

On November 21, 2000 a response was received that provided information regarding both CERCLIS NFRA locations (see the attached documents). The documents reviewed indicate:

- U.S. Customs Service, 6 World Trade Center, New York, NY; CERCLIS #NY4470002433 -- An extensive review of the operations at the U.S. Customs Service performed by NUS Corporation of Edison, NJ resulted in their September 20, 1989 report (attached). That report indicates that the apparent initiation of the CERCLIS review process was the presence of a pistol firing range and historic storage of unknown and/or potentially hazardous materials related to U.S. Customs seized materials.

The pistol range, which includes the use of lead bullets, generates approximately 10 pounds of solid waste per year.

The presence of U.S. Customs seized materials, in addition to unknown materials, included arsenic compounds, acids, dyestuff, paint, degreaser, lubricating oils, motor oils, insecticide, strontium metal, urethane and numerous other materials. Documents indicate that all unknown and/or hazardous materials were removed from the facility in 1987 by a licensed hazardous waste contractor (ENPRO, Inc.). They report that the materials had accumulated over several years. They have modified their procedures to restrict the transport of such materials to their 6 World Trade Center location and entered into a blanket purchase agreement to have hazardous materials removed directly from piers and warehouse areas.

Based upon the information provided in response to our FOI request, in our opinion, the U.S. Customs operations at 6 World Trade Center should not be a significant threat to the subject Site.

- Radium Luminous Materials Co., 55 Liberty Street, New York, NY; CERCLIS #NYD987001443 -- The property was apparently listed for a Preliminary Assessment due to a lack of available background information. The documents reviewed indicate seventeen (17) government agencies were contacted to gather background information. These included the New York State Departments of Environmental Conservation and Health and New York City Bureau of Radiological Control and Department of Environmental Protection. These inquiries yielded no information regarding the location and they state "there is no indication that hazardous substances were ever utilized on-site."

Additionally, they made a site reconnaissance in 1992 indicated "that there is a low potential for contaminants to leave the site" and that "if any contaminants would be located on-site, they would remain contained inside the building or the building's drain system."

They concluded that a status of Site Evaluation Accomplished (SEA) be applied to the location and a NFRAP status applies.

Based upon the NFRAP status, distance, estimated groundwater flow direction, and the dense nature of subsurface structures, in our opinion, it is unlikely this listing indicates a significant

threat to groundwater and/or soil on the subject Site.

A search of the Emergency Response Notification List (ERNS) maintained by the U.S. EPA for the Site only, revealed the Site is listed as:

- 72 S 1 World Trade Center, ID #268421, for a release reported 6/3/92 of an "unknown sheen sighting sheen size 1000 x 400 black and redish".
- World Trade Center, ID #506484, for a reported 9/6/96 of an "unknown sheen sighting, sheen size 200 yds x 400 yds rainbow in color".

A FOI request was made to the U.S. EPA for any available information regarding these ERNS listings on October 4, 2000 and was assigned Request Identification Number 02-RIN-00022-01.

On November 22, 2000, a response was received. The response did not provide any additional information beyond that in the database. The response states the location "is not listed on the CERCLIS or NFRAP lists at the present time."

Based upon the apparent limited nature of the reported sheens, with no transition to the Federal CERCLIS or State Spill or Site listings, in our opinion, these ERNS reports are unlikely to indicate a significant threat to the subject Site.

In conclusion, in our opinion, none of the above discussed CERCLIS or ERNS listings should indicate a significant threat to current on-Site conditions.

Please note, this letter is presented as an addendum to our full Phase I Environmental Site Assessment (ESA) regarding the World Trade Center, New York City, NY. This letter report should only be relied upon in conjunction with our previous ESA report and is subject to all of the limiting conditions and contractual terms and conditions presented in that report as well as to the ASTM E1527-97 Standard.

Yours truly,



R. Wayne Crandlemere
President

Attachments: Response of the U.S. EPA FOI Requests
02-RIN-02381-00 & 02-RIN-00022-01



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION II
290 BROADWAY
NEW YORK, NY 10007-1866

NOV 17 1999

Re: Freedom of Information Act Request No.(s): (2)RIN- 0022-01
WORLD TRADE CENTER, NEW YORK, NY 10007 9/6/96
Subject: WORLD TRADE CENTER, NEW YORK, NY 10047 6/3/92

Dear FOIA Requester:

The above-mentioned site is not listed on the CERCLIS or NFRAP lists at the present time.

As of February, 1995, CERCLIS no longer includes sites which EPA has assessed and designated "No further Remedial Action Planned" (NFRAP). A NFRAP designation means, to the best of EPA's knowledge, Superfund has completed its assessment at a site and determined no further steps would be taken to list this site on the National Priorities List (NPL) unless information is received at a later time indicating this decision was not appropriate. A NFRAP decision does not necessarily mean that there is no hazard associated with a given site; it means only that based upon available information, the location is not judged to be a potential NPL site.

Also, the absence of a facility from the CERCLIS list should not be construed as a determination by the EPA that the facility has not been affected by the presence of any hazardous waste. The absence of a facility from this list means that EPA has not received information indicating that there has been a release or threat of release of hazardous substances at or from the facility. Therefore, EPA has not performed an assessment at this location to date. As with any parcel of real property, EPA may be called upon to assess the property for a release or threat of release of hazardous substances should conditions warrant.

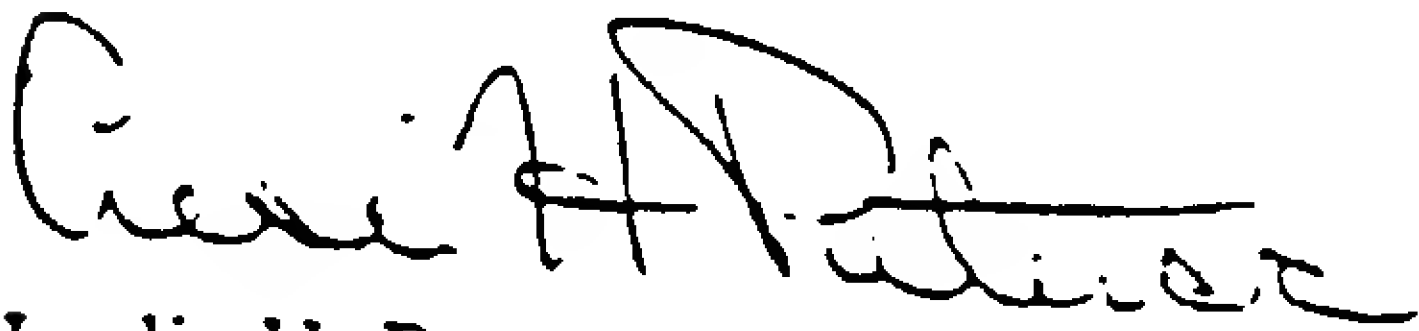
In the future, you may conduct site searches by accessing the internet at the following World Wide Web Sites:

CERCLIS: <http://www.epa.gov/region02/superfund.htm>
ERNS: <http://www.epa.gov/ERNS/docs/data.html>
NTIS: <http://www.ntis.gov>
EPA HQ: <http://www.epa.gov>

You may also obtain hard copy or diskettes of CERCLIS and other Region 2 lists from the Superfund Automated Phone System or from the National Technical Information Service (NTIS). Enclosed are instructions for accessing each of these systems.

If your request includes non-Superfund inquiries, copies of your letter will be sent to other EPA divisions for separate response.

Sincerely,



Leslie H. Peterson, Chief
Resource Management/ Cost Recovery Section
Emergency and Remedial Response Division

Enclosures



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

NOV 15 2000

Re: Freedom of Information Act Request No.(s): (2)RIN- 238/-00

Dear FOIA Requester:

Enclosed is a copy of the Emergency and Remedial Response Division Archived site file you have requested, EPA ID#S *NY4470002433, NYD987001443*

As of February 15, 1995, CERCLIS no longer includes sites which EPA has assessed and designated "No Further Remedial Action Planned" (NFRAP). A NFRAP designation means, to the best of EPA's knowledge, Superfund has completed its assessment at a site and determined no further steps would be taken to list this site on the National Priorities List (NPL) unless information is received at a later time indicating this decision was not appropriate. A NFRAP decision does not necessarily mean that there is no hazard associated with a given site; it means only that based upon available information, the location is not judged to be a potential NPL site.

Also, the absence of a facility from the CERCLIS list should not be construed as a determination by the EPA that the facility has not been affected by the presence of any hazardous waste. The absence of a facility from this list means that EPA has not received information indicating that there has been a release or threat of hazardous substances at or from the facility. Therefore, EPA has not performed an assessment at this location to date. As with any parcel of real property, EPA may be called upon to assess the property for a release of hazardous substances should conditions warrant.

In the future, you may conduct searches for Archived sites by accessing the internet at the following World Wide Web Site: <http://www.epa.gov/superfund/sites/arcsites/arcstate.htm>

Sincerely,

Leslie H. Peterson, Chief
Resource Management/Cost Recovery Section
Emergency and Remedial Response Division

Enclosure



103
NG GEORGES POST ROAD
JN. NEW JERSEY 08837
201-225-6160

00650
02-8909-09

C-584-09-89-86

September 20, 1989

Ms. Amy Brochu
U.S. Environmental Protection Agency
Region 2
Edison, New Jersey 08817

Re: Letter Report for Merchandise Control Sales Section, U.S. Customs Service,
EPA ID No. NY4470002433.

Dear Amy:

After a review of the available background information for the Federal Facilities PA candidate, Merchandise Control Sales Section of the U.S. Customs Service, a recommendation of **NO FURTHER REMEDIAL ACTION PLANNED (NFRAP)** under CERCLA/SARA is proposed. The Merchandise Control Sales Section is located at 6 World Trade Center in New York City. This PA assignment is authorized under TDD No. 02-8909-09. The recommendation is based upon several findings.

On February 22, 1987, the Merchandise Control Sales Section responded to a request from the U.S. EPA to submit a Potential Hazardous Waste Site Preliminary Assessment form (EPA Form 2070-12). Information was provided about a pistol firing range and included a statement that no hazardous wastes were generated on site that would affect the community or the environment.

On October 9, 1987, a letter from Peter J. Baish, Area Director, N.Y. Seaport, U.S. Customs Service, was sent to Vincent Pitruzzello of the U.S. EPA Region 2, 26 Federal Plaza. This letter stated that the U.S. Customs Service did not want to establish a hazardous waste site at its New York facility, and requested that the EPA amend its records to indicate that this facility was not a hazardous waste site.

On October 30, 1987, a memo was sent by Mr. J. Battaglia of the U.S. Customs Service to Alida Karas of the U.S. EPA at 26 Federal Plaza, listing numerous substances that had been stored on site. It was not clear from the memo whether these were hazardous products or hazardous wastes.

On September 13, 1989, a telephone conversation between Deputy Assistant Director L. Caryn Wise of the U.S. Customs Service, Entry, N.Y. Seaport Area, and NUS Corp. Region 2 FIT, indicated that the facility had stored materials that were confiscated by U.S. Customs Service agents from ships entering New York Harbor. Previously stored materials were removed by a private contractor (Northrup) in 1987. Seized materials are no longer stored at the 6 World Trade Center facility.

On September 14, 1989, a telephone conversation with Mr. Joe Battaglia of the U.S. Customs Service, Sales and Seizure Section, who was formerly employed in the Merchandise Control Sales Section, indicated that no manufacturing or hazardous waste generation ever occurred at the facility and that seized materials were stored for various periods of time before removal by private contractors, which included Applied Technology in New Jersey and ENPRO in Baltimore, Maryland.

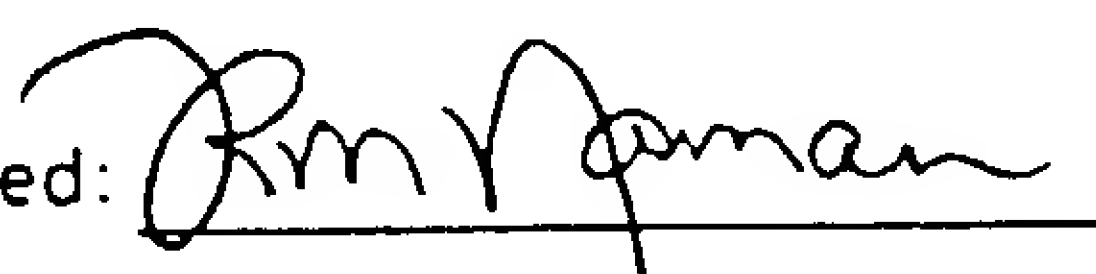
Ms. Amy Brochu
U.S. Environmental Protection Agency
September 20, 1989 - Page Two

In conclusion, these findings indicate that the Merchandise Control Sales Section of the U.S. Customs Service N.Y. Seaport Area initially filed as a hazardous waste site at the request of the EPA, but the information provided by representatives of the U.S. Customs Service on September 13 and 14, 1989 confirms that the facility does not generate, treat, store, or dispose of hazardous wastes at the World Trade Center, New York City, as part of its function for the U.S. government.

Attached are the references to support the NFRAP recommendation. If you have any questions, please do not hesitate to call.

Very truly yours,


Steven Okulewicz

Reviewed and Approved: 

SO/ci

Attachment

ATTACHMENT 1

REFERENCES

1. Potential Hazardous Waste Site, Preliminary Assessment, U.S. Environmental Protection Agency, EPA Form 2070-12; Merchandise Control Sales Section, February 22, 1987.
2. Letter from Peter J. Baish, Area Director, N.Y. Seaport, Department of the Treasury, U.S. Customs, Service to Vincent Pitruzzello, Chief, Program Support Branch, Environmental Protection Agency, Region 2. October 9, 1987.
3. Department of the Treasury, United States Customs Service Memorandum from J. Battaglia to Alida Karas, U.S. EPA, 26 Federal Plaza, Subject: General order merchandise of material removed from 6 World Trade Center. October 30, 1987.
4. Telecon Note: Conversation between L. Caryn Wise, Deputy Assistant Director, Entry, N.Y. Seaport Area, U.S. Customs Service, and Steven Okulewicz, NUS Corp., September 13, 1989.
5. Telecon Note: Conversation between Joe Battaglia, Sales and Seizure Section, U.S. Customs Service, and Steven Okulewicz, NUS Corp., September 14, 1989.

REFERENCE NO. 1



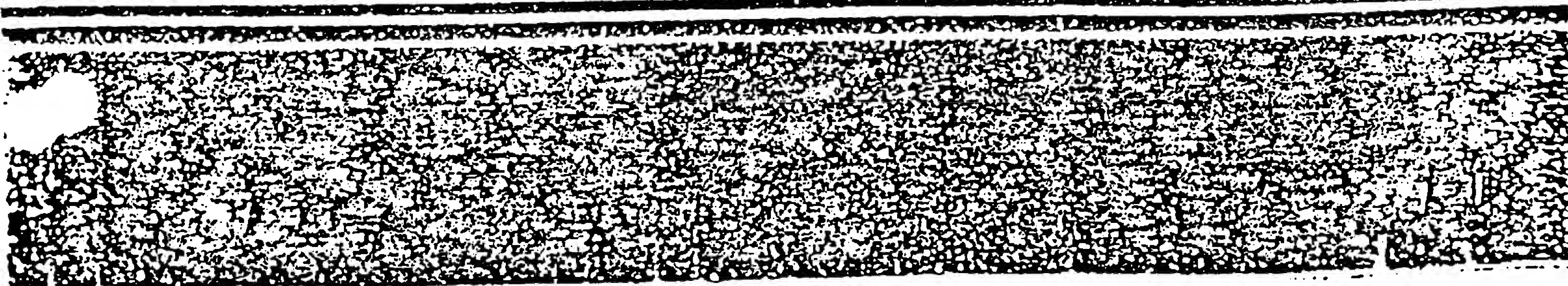
Potential Hazardous Waste Site

Preliminary Assessment

ID NY 4470002433

GSA Merchandise Control Sales Sect. 6 World Trade Center
New York

Attachment 4





POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
NY 447000243

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site) Merchandise Control Sales Section		02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER 6 World Trade Center			
03 CITY New York	04 STATE NY	05 ZIP CODE 10048	06 COUNTY New York	07 COUNTY CODE	08 CONG DIST
09 COORDINATES LATITUDE 40° 43' 25" N		LONGITUDE 74° 00' 00" W			
10 DIRECTIONS TO SITE (Starting from nearest public road)					

III. RESPONSIBLE PARTIES

01 OWNER (If known) General Service Admin		02 STREET (Business, mailing, residential) 26 Federal Plaza			
03 CITY New York	04 STATE NY	05 ZIP CODE 10278	06 TELEPHONE NUMBER (212) 264-8778		
07 OPERATOR (If known and different from owner)		08 STREET (Business, mailing, residential)			
09 CITY	10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER		
13 TYPE OF OWNERSHIP (Check one) <input type="checkbox"/> A. PRIVATE <input checked="" type="checkbox"/> B. FEDERAL: Gen. Serv. Admin (Agency name) <input type="checkbox"/> C. STATE <input type="checkbox"/> D. COUNTY <input type="checkbox"/> E. MUNICIPAL <input type="checkbox"/> F. OTHER (Specify) <input type="checkbox"/> G. UNKNOWN					
14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply) <input checked="" type="checkbox"/> A. RCRA 3001 DATE RECEIVED: 10/23/87 MONTH DAY YEAR <input type="checkbox"/> B. UNCONTROLLED WASTE SITE (RCRA 103) DATE RECEIVED: / / MONTH DAY YEAR <input type="checkbox"/> C. NONE					

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION <input checked="" type="checkbox"/> YES DATE 3/10/87 MONTH DAY YEAR <input type="checkbox"/> NO		02 BY (Check all that apply) <input type="checkbox"/> A. EPA <input type="checkbox"/> B. EPA CONTRACTOR <input type="checkbox"/> C. STATE <input type="checkbox"/> D. OTHER CONTRACTOR <input type="checkbox"/> E. LOCAL HEALTH OFFICIAL <input checked="" type="checkbox"/> F. OTHER: Princeton Testing Lab (Specify) CONTRACTOR NAME(S):			
03 SITE STATUS (Check one) <input type="checkbox"/> A. ACTIVE <input checked="" type="checkbox"/> B. INACTIVE <input type="checkbox"/> C. UNKNOWN		04 YEARS OF OPERATION N/A BEGINNING YEAR ENDING YEAR <input type="checkbox"/> UNKNOWN			
05 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED Lead-firing range					

03 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

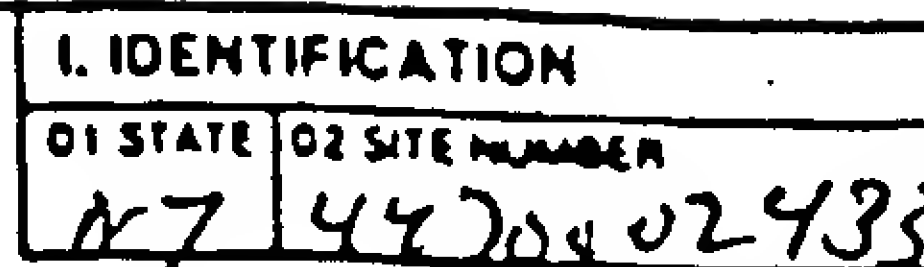
No hazard present. Office building. No hazardous materials stored to affect community environment.

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one: High or medium is checked; complete Part 2. Describe information and Part 3 - Description of Hazardous Conditions and materials) <input type="checkbox"/> A. HIGH <input type="checkbox"/> B. MEDIUM <input type="checkbox"/> C. LOW <input checked="" type="checkbox"/> D. NONE (No further action needed; complete survey disposition form)			
---	--	--	--

VI. INFORMATION AVAILABLE FROM

01 CONTACT Michael S. Par	02 OF (Agency/Organization) Gen. Serv. Admin	03 TELEPHONE NUMBER (212) 264-8778	
04 PERSON RESPONSIBLE FOR ASSESSMENT Michael Par	05 AGENCY Safety/Env	06 ORGANIZATION Safety/Env	07 TELEPHONE NUMBER (212) 264-8778
		08 DATE 2/22/87 MONTH DAY YEAR	



01 PHYSICAL STATES (CHECK ALL THAT APPLY)	02 WASTE QUANTITY AT SITE <small>(ESTIMATE OF WASTE QUANTITY MUST BE INDICATED)</small>	03 WASTE CHARACTERISTICS (CHECK ALL THAT APPLY)
<input checked="" type="checkbox"/> A SOLID <input type="checkbox"/> B POWDER, FINES <input type="checkbox"/> C SLUDGE <input type="checkbox"/> D OTHER _____ <small>(Specify)</small>	<input type="checkbox"/> E SLURRY <input type="checkbox"/> F LIQUID <input type="checkbox"/> G GAS TONS _____ CUBIC YARDS _____ NO OF DRUMS _____	<input checked="" type="checkbox"/> A TOXIC <input type="checkbox"/> B CORROSIVE <input type="checkbox"/> C RADIOACTIVE <input type="checkbox"/> D PERSISTENT <input type="checkbox"/> E SOLUBLE <input type="checkbox"/> F INFECTIOUS <input type="checkbox"/> G FLAMMABLE <input type="checkbox"/> H IRRITABLE <input type="checkbox"/> I HIGHLY VOLATILE <input type="checkbox"/> J EXPLOSIVE <input type="checkbox"/> K REACTIVE <input type="checkbox"/> L INCOMPATIBLE <input type="checkbox"/> M NOT APPLICABLE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OLY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS	1015		Lead - Pistol Range

[illegible]

V. FEEDSTOCKS (See Appendix for CAS Numbers)					
CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

Facility Safety/Health Survey FY'87



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☐ A GROUNDWATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED _____

02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ B SURFACE WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED _____

02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ C CONTAMINATION OF AIR
03 POPULATION POTENTIALLY AFFECTED _____

02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ D FIRE/EXPLOSIVE CONDITIONS
03 POPULATION POTENTIALLY AFFECTED _____

02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ E DIRECT CONTACT
03 POPULATION POTENTIALLY AFFECTED _____

02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ F CONTAMINATION OF SOIL
03 AREA POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ G DRINKING WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED _____

02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ H WORKER EXPOSURE/INJURY
03 WORKERS POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ I POPULATION EXPOSURE/INJURY
03 POPULATION POTENTIALLY AFFECTED _____

02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☐ J. DAMAGE TO FLORA
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE _____)

☐ POTENTIAL

☐ ALLEGED

01 ☐ K. DAMAGE TO FAUNA
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE _____)

☐ POTENTIAL

☐ ALLEGED

01 ☐ L. CONTAMINATION OF FOOD CHAIN
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE _____)

☐ POTENTIAL

☐ ALLEGED

01 ☐ M. UNSTABLE CONTAINMENT OF WASTES
(Spills, leaks, overflowing drums, leaking drums)
03 POPULATION POTENTIALLY AFFECTED _____

02 ☐ OBSERVED (DATE _____)

☐ POTENTIAL

☐ ALLEGED

04 NARRATIVE DESCRIPTION

01 ☐ N. DAMAGE TO OFFSITE PROPERTY
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE _____)

☐ POTENTIAL

☐ ALLEGED

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTP
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE _____)

☐ POTENTIAL

☐ ALLEGED

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE _____)

☐ POTENTIAL

☐ ALLEGED

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL OR ALLEGED HAZARDS

III. TOTAL POPULATION POTENTIALLY AFFECTED: _____

IV. COMMENTS

Site is Federal Office Building, dealing w. day-to-day govt business. No HW generated to affect community water supply

V. SOURCES OF INFORMATION (List all sources of information used in the assessment)

REFERENCE NO. 2



DEPARTMENT OF THE TREASURY

U.S. CUSTOMS SERVICE

NEW YORK, N.Y.

OCT 09 1987

REFER TO
FAG-1-S-CC JB

name of facility?
merchandise
Controls Sales
Sec?

US Customs
6 World Trade
NY 1048

ATTN - Mike Contino
Rm 215

Mr. Vincent Pitruzzello
Chief, Program Support Branch
Environmental Protection Agency, Region II
26 Federal Plaza,
New York, N.Y. 10278

make facility
Call

Dear Mr. Pitruzzello:

Your office recently forwarded correspondence pertaining to Federal facility pre-remedial activity requirements for the Superfund program. The correspondence comprised a packet of documents and forms requesting detailed information for the establishment of a hazardous waste site.

This office does not wish to establish a hazardous waste site at this facility and we therefore feel that the information requested by your inquiry is unnecessary.

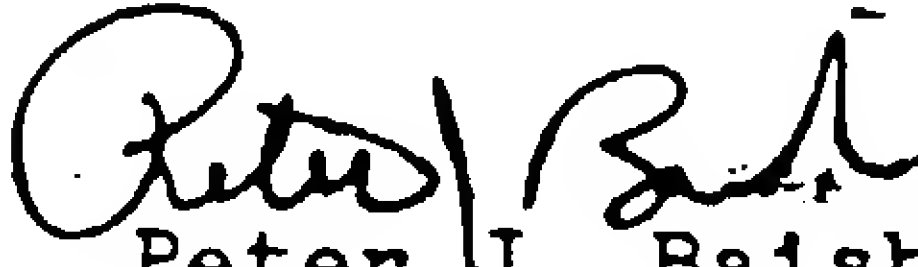
We have in recent months disposed of a quantity of merchandise considered to be hazardous, through the services of a licensed waste-removal contractor (ENPRO Inc.). These items accumulated over several years due to budget restrictions imposed on all Federal agencies. At this point in time we have re-established a blanket purchase agreement to have hazardous materials removed on a continual basis. In addition, we have reinforced regulations to prevent the transferral of such materials from piers and warehouses to this facility (6 World Trade Center).

In view of the above, it is requested that you amend your records to reflect that this facility is not a hazardous waste site. Accordingly we are returning your documents without any of the requested information.

126/87
sent
PA
for them
to fill out

If further details are required please contact Mr. Michael Contino, Deputy Director, Entry Division, New York Seaport on (212) 466-5557.

Sincerely,


Peter J. Baish
Area Director
New York Seaport

Enclosure:

REFERENCE NO. 3



DEPARTMENT OF THE TREASURY
UNITED STATES CUSTOMS SERVICE
TRANSMITTAL AND ROUTING SLIP

SUBJECT OR FILE NO.

Hazardous Waste Hazard

SUSPENSE DATE

- | | | | | |
|-----------------|---------------|----------------|------------------------|-----------------|
| 1. ACTION | 4. CIRCULATE | 7. CORRECT | 10. INITIAL ATTACHMENT | 13. SEE ME |
| 2. APPROVAL | 5. COMMENT | 8. FILE | 11. PER CONVERSATION | 14. SEE REMARKS |
| 3. AS REQUESTED | 6. COORDINATE | 9. INFORMATION | 12. RETURN | 15. SIGNATURE |

TO	DESTINATION	ACTION CODE(S)	INITIALS	OUT DATE	TO	DESTINATION	ACTION CODE(S)	INITIALS	OUT DATE
1	Alida Keres				5				
2	LIS E. D. H.								
3	Rm. 747				1				
4	26 Fed Plaza, N.Y.				1				

More Hazardous Waste

REMARKS

Re: Per phone conversation between Mr. H. Shannon & Mr. Contino, Dep. Dir. Entry Div., attached is listing of materials removed from G WTC, N.Y. by the ENPRO Co. in past few months. There are no longer any hazardous wastes stored in this facility.

FROM	OFFICE AND ROOM NO.	PHONE	DATE
J. P. Battaglia	Entry & Comp. 215	466-5557	10/30/87

GPO 519-330

Customs Form 3107 (5-8-77)

April 18, 1985

Memorandum

FILE: FAC 11-07 NY LAB ES

Director, New York Laboratory

SUBJECT: General Order (GO) merchandise; your verbal request for comments on merchandise under custody of Sales and Seizure Section at 6 WTC.

TO: Chief, Merchandise Control Branch

I The following merchandise is hazardous to human and animal health and dangerous to the environment. Items must be disposed by a licensed firm operating in accordance with EPA regulations.

GO No.	Item
3799	"SECOSOL-X ALL 40": Surfactant (IRRITANT); one container/44 lbs.
31337	cyanogen bromide: TOXIC; 5 cans/one pt. each
25166	Arsenic compound: TOXIC; one container/one lb.
70402	degreaser: CORROSIVE; 2 pails/5 gals. each
16139	degreaser: CORROSIVE; 1 pail/5 gals.
70479	degreaser: CORROSIVE; 2 pails/5 gals. each
50873	"TIN GLO CULMO BRIGHTENER": CORROSIVE; 8 pails/5 gals. each
N-1559-E	"GENAPOL 0-100" surfactant: IRRITANT; one can/3 gals.
11729	"ACID CHLORIDE": CORROSIVE; 3 containers
2349	"GRISEOFULVIN USP": antibiotic; one container/236 lbs.
1820	zinc chloride: CORROSIVE; one container/110 lbs.
N-1897-E	isopropyl palmitate: FLAMMABLE; one container/66 lbs.
16571	"AROCHEM 650" plastics material: FLAMMABLE; one container/225 lbs.
64244	"PYROLIGNEOUS ACID": TOXIC, FLAMMABLE, and CORROSIVE; one container/50 lbs.
N-1579	"FABEROL 596": oil-FLAMMABLE; one container/136 lbs.
17347	mineral oil: FLAMMABLE; one drum/55 gals.
2305 (a)	"FLORASYNTH 75-R-716" fragrance: FLAMMABLE; one drum/55 gals.
2305 (b)	sodium saccharin: COMBUSTIBLE and CARCINOGENIC; one drum/100 lbs.
28595	"PM 502; PM 503": zinc dust-FLAMMABLE and TOXIC; 2 cans/one quart each
16927	dyestuff: COMBUSTIBLE; one drum/110 lbs.
79027	flavoring: FLAMMABLE; one can/5 gals.
83-76236	paint: FLAMMABLE; one drum/55 gals.
4247	perfumery essence: FLAMMABLE; one drum/100 lbs.
11205	paint: FLAMMABLE; one drum/55 lbs.

OPTIONAL FORM NO. 10
(REV. 1-80)
GSA FPMR (41 CFR) 101-11.6
5010-114

☆ GPO : 1983 O - 421-526 (9176)

70218	terpineol: FLAMMABLE; 2 drums/55 gals. (935 lbs.) each
70030	lubricating oil: FLAMMABLE and TOXIC; 1 drum/55 gals. (500 lbs.)
3250	motor oil: FLAMMABLE and TOXIC; 1 drum/55 gals. (460 lbs.)
4266	acetal resin: FLAMMABLE and TOXIC decomposition products; 2 containers/55 lbs. each
76-2413	"DIACHLOR B CHELATOR": TOXIC; 2 drums/55 gals. each
45504	sodium dehydroacetate: 1 container/100 lbs.
80-3260	"FURADAN 75": TOXIC; 1 container/55 lbs.
15171	ethyl silicate: FLAMMABLE; 1 container/150 lbs.
17030	"INFIRNOL" surfactant: IRRITANT; 1 container/100 lbs.
6431	dyestuff: COMBUSTIBLE; 1 container/110 lbs.
76702	surfactant: IRRITANT; 1 drum/55 gals. (440 lbs.)
50145	dyestuff: COMBUSTIBLE; 1 drum/275 lbs.
688	lubricating grease: FLAMMABLE and TOXIC; 1 container/50 lbs.
4796	flammable liquids; 5 containers/23 lbs. each
30102	lead stearate + dioctylphthalate: TOXIC and FLAMMABLE; 1 carton/2 lbs.
82-4604	brucine sulfate: TOXIC; 20 cans/100 ozs. each
2912	palm kernel fatty acid: FLAMMABLE and IRRITANT; 1 drum/55 gals.
79017	"SAUEREISEN": soluble silicate, IRRITANT; 2 drums/55 gals. each
1885	acrylic acid: TOXIC; 1 drum/55 gals.
16943	antimony oxide: TOXIC; 1 crate/20 lbs.
55452	cylinder (one gal capacity): isoprene under pressure; FLAMMABLE and EXPLOSIVE
659	ethyl glyoxylate: FLAMMABLE; 10 bottles/1 pint each
23793	insecticide: TOXIC; 1 can/1gal.
23739	polyester resin in styrene: FLAMMABLE and TOXIC; 1 can/5 gals.
N-80-231	"ALBAPLAS": TOXIC; 1 container/10 gals.
N-76-3979	"BERMODAL": FLAMMABLE; 1 container/10 gals.
N-80-3182	"WIN 41361" (dihydrobipyridine carboxamide): TOXIC; 1 drum/25 lbs.
2912	strontium metal: FLAMMABLE and REACTIVE; 1 drum/100 lbs.
45620	sodium lauryl sulfate (EMPICOL LQ 33): IRRITANT; 1 container/55 lbs.

¶I Merchandise covered under the following G.O. Nos. was found to be non-hazardous to health and environment and was discarded into commercial trash dumpsters.

G.O. No.

~~82-23742~~

~~823~~

~~563~~

~~15305~~

~~31107~~

~~14426~~

~~1035~~

~~972~~

~~26958~~

G.O. No.

~~3077~~

~~2239~~

~~22418~~

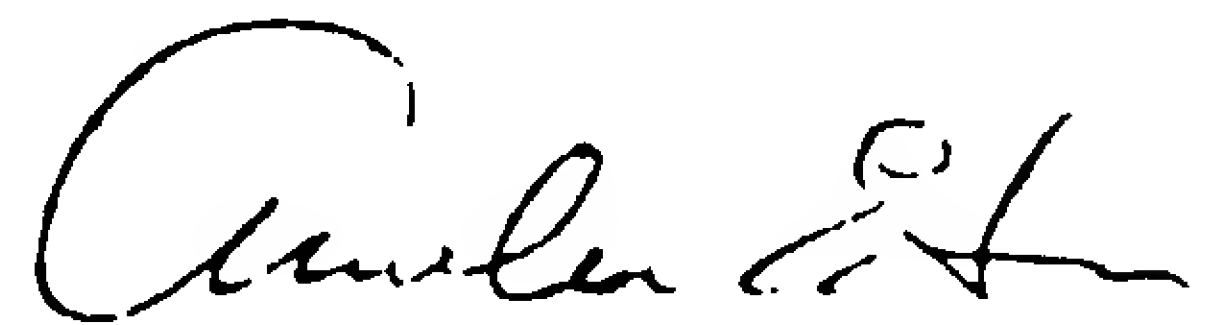
~~28915~~

~~842~~

~~18777~~

~~64244~~

~~5783~~



Amelia Eaton

cc: Head, Sales & Seizure Section

Location

SALES & SEIZURE SECTION, ROOM 114

(RADIOACTIVE MATERIALS)
DESCRIPTION

<u>LOT #</u>	<u>G.O. #</u>	
12/81-325	28579	(1) BLUE METAL DRUM, 22" H. X 14½, 301 LBS.
2/82-57	0073	(4) GREEN METAL CANNIATERS, 21½" H. X 4½" D. 9 OBS. EACH
2/82-454	32008	(2) SUITCASE TYPE PACKAGES CONTAINING X-RAY EQUIP. 7" X 12" X 24" - 39 LBS. 9½" X 10" X 18½" 34 LBS.
9/82-235	12556	(2) CT. OF "MACHINE SPARE PARTS BOTH 12½" X 12½" X 13½" - 13½ LBS. EACH.
5/81-1625-B	N-1636-E	(1) CR. CONTAINING A LARGE METAL FIXTURE 3'X4'X8' 893 LBS., and (1) GRAY METAL BOX LABELED "NUCLEAR ENTERPRISES LTD." 8"X15½"X20" - 61 LBS.
2/83-130	82-4136	(2) CT. OF "EXEMP RADAR. BOTH 12½ X 12 3/4" X 13" 14 LBS. EA.
2/83-160	23212	(1) CT. CONTAINING A "LAB SAMPLE OF LEDAKRIN - C-14 RADIOACTIVITY OF 1 X .2.0 mCi 5½" X 4½" X 4" 1 LB.
10/83-166	82-27253	(2) RADIOACTIVE FOUNTAIN
10/83-642	83-28583	(1) RADAR ACTIVE MATERIAL

LOCATION

SALES & SEIZURE SECTION, ROOM 114

(CHEMICALS)

<u>LOT #</u>	<u>G.O. #</u>	<u>DESCRIPTION</u>
9/86-332	9635	1 SMALL PLASTIC BAG OF YELLOW COLORED POWDER 1 LARGE PLASTIC BAG OF ORANGE COLORED POWDER
11/86-183	10400	2 PLASTIC BOTTLES OF FUEL OIL SAMPLES
9/86-381	41208	40 130z. CANS OF PLASTIC SPRAY
5/85-431	46931	4 SMALL CANS OF LIQUID SUBSTANCE-POSSIBLY PAINT
11/86-494	11449	12 825ml. CANS OF INSTANT p.u. FOAM
11/86-475	11347	5 SMALL GLASS AMPULES OF PESTICIDES
3/86-718	45535	1 SMALL CAN OF UCECOAT UM 23 1 LARGE CAN OF UCECOAT NPU 23
8/86-355	8084	2 GLASS BOTTLES OF XEROX FUSER LUBE
3/86-697	45658	1 CAN (200g) OF TRIGANOX
6/86-249	5520	1 PLASTIC BAG OF HARD YELLOW SUBSTANCE
8/86-207	9108	1 PLASTIC BOTTLE OF FUEL OIL SAMPLE
1/86-159	00310	1 PLASTIC BOTTLE OF EPOXY HARDNER
9/86-183	9032	1 BAG OF BROWN COLORED POWDER
11/86-394	10916	1 BAG OF BLUE COLORED POWDER
9/86-320	9599	4 250 ml CANS MARKED: ECP 521 GRAPHITE COATING ECP 502, ECP 503, ECP 531 - UNKNOWN
5/86-274	4211	2 1 kg. BAGS MARKED: 245 RESIN & 345 RESIN
9/86-306	9493	1 SMALL CAN OF PAINT
7/86-594	3244	1 SMALL CAN OF PAINT
5/86-423	4618	1 GLASS BOTTLE OF BENZALDEHYDE
8/85-15	15967	6 PLASTIC BOTTLES OF LUBE OIL SAMPLES
9/86-329	9619	5 CANS OF DIVINYL BENZENE
12/85-264	21664	1 BAG OF WHITE GRANULAR SUBSTANCE

LOCATION
SALES & SEIZURE SECTION, ROOM 114
(CHEMICALS)

<u>LOT #</u>	<u>G.O. #</u>	<u>DESCRIPTION</u>
10/85-621	50273	3 CANS EACH CONTAINING 1000 TABLETS OF MERCURYOXIDE AND POTASSIUM SULPHATE COMBINATION
3/86-352	2360	1 CAN OF OIL
1/86-226	00573	1 PKG. OF BARIUM COMPOUND
5/85-884	47667	2 METAL CONTAINERS OF PERFUME
12/85-346	47356	1 2.5 gal. PLASTIC CONTAINER OF PRE-MIX TONER
3/86-505	2904	2 CANS OF URETHANE
8/85-260	16738	2 LARGE GLASS BOTTLES MARKED: No. 1 ZAYIF BHC No. 2 LIN DAME
5/86-411	4600	2 CANS - POSSIBLY PETROLIUM PRODUCT
7/86-261	6812	9 METAL BOTTLES MARKED: ACIDE CEKANOIC (C8-C10)
2/85-1	2340	2 CANS OF LIQUID SUBSTANCE
3/85-384	45756	4 PLASTIC CONTAINERS OF HI-SPEED CONCENTRATE 1 PLASTIC CONTAINER OF ACTIVATOR
5/85-398	46737	1 20 LITER CAN OF GENERAL DEGREASER
5/84-243	12069	2 PLASTIC BAGS OF DEXAMETHASONE BASE
2/85-44	70352	1 BURLAP BAG OF BLACK POWDER
3/85-494	45655	1 55 GAL. DRUM OF LIQUID SUBSTANCE
3/86-708	45522	11 PLASTIC DRUMS OF OIL
12/85-360	47381	7 20 LITER PLASTIC CONTAINERS OF NICORON
5/85-840	46371	6 CANS OF PAINT
'86-201	1905	2 GLASS BOTTLES OF OIL SAMPLES

REFERENCE NO. 4

DATE:

TIME:

02-8409-09

9/13/89

1600

DISTRIBUTION:

TO FILE: MERCHANDISE CONTROL SALES SECTION

BETWEEN: DEPUTY ASST. DIRECTOR

L. CARYN WISE

OF: ENTRY, N.Y. SEAPORT
APPROX, U.S. CUSTOMS
SERVICE

PHONE:

6721466-5557

AND:

STEVEN OKULEWICZ, NUS EDISON

DISCUSSION:

I ASKED MS. WISE ABOUT THE HAZARDOUS MERCHANDISE THAT WAS STORED AT THE N.Y. FACILITY AT 6 WORLD TRADE CENTER. SHE INFORMED ME THAT THE MATERIAL STORED THERE AT THAT TIME WERE IMPORTED PRODUCTS, MERCHANDISE, AND ITEMS SEIZED BY U.S. CUSTOMS AGENTS FROM SHIPS ENTERING N.Y. PORTS. SEIZED MATERIALS ARE NO LONGER STORED THERE AND ARE CURRENTLY REMOVED BY A PRIVATE CONTRACTOR CALLED "NORTHROP." I ASKED ABOUT THE EXISTENCE OF A FIRING RANGE ON SITE AND WAS TOLD THAT IT IS EXACT. MS. WISE GAVE ME THE NAME AND PHONE NUMBER OF AN EMPLOYEE WHO WORKED IN THIS AREA OF STORAGE - JOE BATTAGLIA - 212 466 5567, I WILL CALL HIM

ACTION ITEMS:

FOR FURTHER INFORMATION:

REFERENCE NO. 5

NUS CORPORATION AND SUBSIDIARIES

TELECON NOTE

ITROL NO:

07-8909-09

DATE:

9/14/89

TIME:

1715

DISTRIBUTION:

TO FILE: MERCHANDISE CONTROL SALES SECTION

BETWEEN:

JOE BATTAGLIA

OF: SALES AND SEIZURE
SECTION
U.S. CUSTOMS SERVICE

PHONE:

(212) 466-5557

AND:

STEVEN OKULEWICZ, NUS EDISON

DISCUSSION:

I ASKED MR. BATTAGLIA ABOUT THE HAZARDOUS WASTES THAT WERE STORED AT THE WORLD TRADE CENTER FACILITY. HE SAID THAT ALL OF THE STORED MATERIALS AND ITEMS WERE SEIZED BY U.S. CUSTOMS OFFICERS FOR VARIOUS REASONS, FROM SHIPS ENTERING NEW YORK HARBOR. NO MANUFACTURING OR WASTE GENERATION EVER OCCURRED AT THE FACILITY. THE WASTES WERE STORED FOR VARIOUS PERIODS OF TIME. THEY WERE EVENTUALLY REMOVED BY VARIOUS COMPANIES - APPLIED TECHNOLOGY IN NEW JERSEY AND ENPRO IN BALTIMORE MARYLAND. I ASKED HIM ABOUT THE DISPOSITION OF THE RADIOACTIVE MATERIAL LISTED ON THE 1985 INVENTORY. HE SAID IT WAS REMOVED BY ENPRO. THE RADIOACTIVE MATERIAL WAS LOW LEVEL

ACTION ITEMS:

AND IN A SMALL QUANTITY, PROBABLY ASSOCIATED WITH A SEIZED X-RAY MACHINE.

COPY

MAR 08 1990

Mr. William Prazak, Director
Real Property Management and
Safety Division
General Services Administration, Region 2
Jacob K. Javits Federal Building
26 Federal Plaza
New York, New York 10278

Re: U.S. Information Agency, Brooklyn, NY
Federal Building, Varick St., New York, NY
Federal Building, 7th Ave., New York, NY
~~Merchandise Control Sales, New York, NY~~
~~Emmanuel Cellard Federal Bldg., Brooklyn, NY~~
GSA Raritan Depot, Edison, N.J.

Dear Mr. Prazak:

This is in reference to your letter of December 21, 1989
pertaining to the above referenced facilities listed on the
United States Environmental Protection Agency's (EPA) Region 2
Federal Agency Hazardous Waste Compliance Docket ("docket").

Upon review of the Preliminary Assessments (PA) which your agency
submitted for the subject facilities, with the exception of GSA
Raritan Depot, we have determined that no further remedial action
is required for these facilities at this time. However, this
determination is subject to change in the future if additional
information becomes available to EPA which warrants a re-
evaluation of the facilities.

With regard to GSA Raritan Depot, we are still awaiting PA
information from GSA as per the attached February 9, 1990 letter
from William Jenkins, GSA Assistant Regional Administrator -
Public Buildings Service. Please note that GSA currently still
owns property at Raritan Depot and hence, is required to submit a
PA. Upon receipt of the PA, EPA will review it to determine any
future action at the site.

If you have any questions, please call Helen Shannon at (212) 264-6664 of my staff.

Sincerely yours,

Robert J. Wing, Chief
Federal Facilities Section

Attachment

cc: S. Shubert, GSA

bcc: V. Pitruzzello, PSB
H. Shannon, FFS ✓

SUPERFUND

DATE: 05/05/92

NEW SITE ASSIGNMENT FORM

CERCLIS EPA I.D. NUMBER _____

NAME OF FACILITY RADIUM LUMINOUS MATERIALS CO. (40)

STREET 55 LIBERTY STREET (30)

CITY NEW YORK, NY ZIP CODE 10005 (10)

COUNTY MANHATTAN (25) COUNTY CODE _____ (3)

SOURCE _____ (1) CONG DIST _____ (2)

LATITUDE: _____ / _____ / _____ . _____ LONGITUDE _____ / _____ / _____ . _____

LL SOURCE: _____ (1) LL-ACCURACY: _____ (1)

INVENTORY IND: Y REMEDIAL IND: _____ REMOVAL IND: _____ FED FAC IND: _____

NPL IND: _____ NPL LISTING DATE: _____ / _____ NPL DELISTING DATE: _____ / _____

NO FURTHER ACTION: _____

SITE DESCRIPTION: _____

*NOTE: PLEASE KEEP SITE DESCRIPTIONS DOWN TO 30 WORDS OR LESS. (240 CHARACTERS)

OPERABLE UNIT ID: 00

EVENT LEAD: _____ (1)

ACTUAL COMPLETION DATE: 05/05/92

EVENT TYPE: D S 1 (3)

ACTUAL START DATE: _____ / _____ / _____

EVENT TYPE: _____ (3)

ACTUAL COMPLETION DATE: _____ / _____ / _____

ACTUAL START DATE: _____ / _____ / _____

EVENT TYPE : _____ (3)

ACTUAL COMPLETION DATE: _____ / _____ / _____

Report No.: 8003-104
Work Assignment No.: 019-2JZZ
Contract No.: 68-W9-0051
November 30, 1992
Updated: February 9, 1993

Ms. Sandra Foose
Pre - Remedial Assistant WAM
Environmental Services Division
U.S. Environmental Protection Agency
Region II
Edison, NJ 08837

✓
AGB
2/11/93
SEA

RE: Radium Luminous Materials Preliminary Assessment

Dear Ms. Foose:

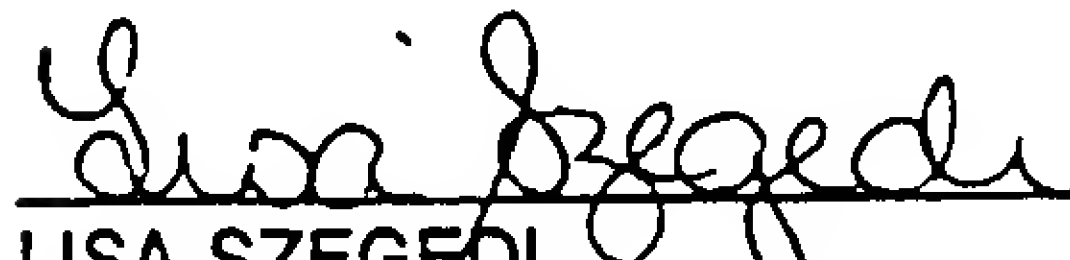
After review of the available information for the Preliminary Assessment (PA) of Radium Luminous Materials, a recommendation of **SITE EVALUATION ACCOMPLISHED (SEA)** is proposed. Radium Luminous Materials (EPA ID No. NYD987001443) was formerly located at 55 Liberty Street, Manhattan, New York County, New York. The recommendation of a SEA is based on the following findings:

- No background information was initially available for this site. A search was conducted with various city, state, and federal agencies in order to locate any information available for this site. Specifically, information regarding the type of work formerly conducted on-site, and the types of materials formerly utilized in on-site processes was requested. Seventeen agencies were contacted for information including the following: the New York State Department of Environmental Conservation (NYSDEC), the New York State Department of Health (NYSDOH), the New York City Department of Environmental Protection (NYCDEP), the U.S. Environmental Protection Agency (USEPA), the New York City Bureau of Radiological Control (NYCBRC), and the New York State Department of Labor (NYSDOL). No information was available from any of the abovementioned agencies. Therefore, there is no indication that hazardous substances were ever utilized on-site.
- A reconnaissance performed for this site in 1992 indicated that there is a low potential for contaminants to leave the site. The site is a 25-story high rise, steel-framed, concrete building. Therefore, if any contaminants would be located on-site, they would remain contained inside the building or the building's drain system.

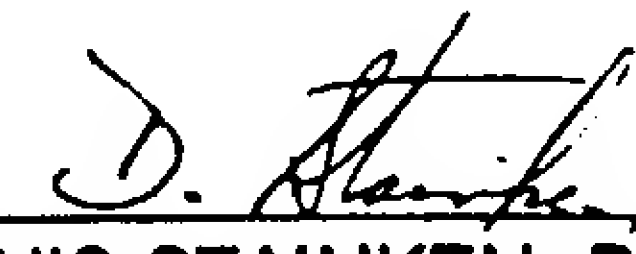
The lack of a documentable waste source, lack of a documented release to the environment, and the lack of migration pathways led to the above recommendation.

Attached are the references to support the recommendation. If you have any questions, please do not hesitate to call.

Very truly yours,


LISA SZEGEDI
SITE MANAGER


JOHN D. RIECKHOFF
PRE-REMEDIAL PROGRAM MANAGER


DENNIS STAINKEN, Ph.D.
WORK ASSIGNMENT MANAGER

j:\8003104\scntr

ATTACHMENT 1

REFERENCES

1. U.S. Environmental Protection Agency (EPA) Superfund Program, Comprehensive Environmental Response Compensation Liability Information System (CERCLIS) List-8: Site/Event Listing, p. 459, August 31, 1992.
2. Project Note: From Lisa Szegedi, Malcolm Pimle, Inc., to Radium Luminous Materials file; Subject: Agencies contacted during background information search, November 16, 1992.
3. Field Notebook No. 8003-1-04-102, Radium Luminous Materials, Off-site Reconnaissance, Malcolm Pimle, Inc., October 28, 1992.

REFERENCE NO. 1

CERHELP DATA BASE DATE: /A
 CERHELP DATA BASE TIME: /A
 ***** FOR INTERNAL USE ONLY *****

U.S. EPA SUPERFUND PROGRAM
PRUD'YEN
CERCLIS
SITE/EVENT LISTING

UN DATE: 08/21/92 16:15:56
ENCLIS DATA BASE DATE: 08/28/92
ENCLIS DATA BASE TIME: 16:20:13
ERSON 3.00

ELECTION: _____
SEQUENCE: _____
MEDIUM: STATE, SITE NAME

VENTS! ALL

STATE	ZIP	UPRBL	EVENT	EVENT
CITY	CONC	UNIT	TYPE	UNAL
STATE	ZIP	UPRBL	EVENT	EVENT
CITY	CONC	UNIT	TYPE	UNAL

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**CURRENT
EVENTS**

2A ID NO	COUNTRY CODE AND NAME	COMMENTS
HYD001667872	RADIUM CHEMICAL	(01)
(CONTINUED)		
		C01
		R01
		RA1
		TA1
		TA2

DATE	TIME	LOCATION
10/18/99	06/21/99	06/21/99
06/29/99	07/12/99	09/28/99

05/05/92 STATE(FUND)

00 051

NYD987001443 RADIUM LUMINOUS MATERIALS CO
55 LIBERTY STREET NY 10005
OT # 8 NEW YORK NY-17

	09/19/86	09/19/86	02/13/91
STATE(FUND)	09/19/86	09/29/86	02/13/91
STATE(FUND)			
STATE(FUND)			

00	US1
	PAL
	SII

NYD981360801 RAILROAD CAR SHOPS
DESPATCH DRIVE
EAST ROCHESTER NY 14445
NY-30

	US/O1/80	EPA (FUND)
	03/05/87	STATE(FUND)
	06/23/87	EPA (FUND)
06/15/87	06/24/91	STATE(FUND)
01/01/91		

00	DS1
	PAL
	S11
	S12

NYD980507545 RAMAPU INCINERATOR
RTE 45 & INCIN R
RAMAPU
NY 10931
NY-26

	04/16/90	09/07/90	EPA (FUND)
	11/06/91 <td>01/31/92 <td>EPA (FUND)</td> </td>	01/31/92 <td>EPA (FUND)</td>	EPA (FUND)
		05/01/99	EPA (FUND)

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NY0000511493	RAMAPO LF	NY 10931
	RTE 59	NY-22
	RAMAPU	

05/01/83	EPA (FUND)
12/01/82	EPA (FUND)
12/30/82	EPA (FUND)
	EPA (FUND)

HR

RAMAPO
087 ROCKLAND
NY-22

	EPA (FUND)	EPA (FUND)	STATE(FUND)	OTHER
09/08/83				
05/01/83				
05/01/83				

SI
NF
NF

05/01/83	OTHER
04/11/88	OTHER
04/11/88	FED ENFORC

01 -

8003-104-101

REFERENCE NO. 2

PROJECT NOTES

Date: November 16, 1992

Project #: 8003-104

Site Name: Radium Luminous Materials

In order to locate background information for the site. No background agencies:

Dr. Paul Merges (518)-457-2225
 operator (212)-502-0700
 -5422
 vford (718)-482-4995
 area-operator (718)-482-4851
 operator (212)-613-4200
 n Bates (518)-458-6400
 eld engineer (718)-643-7875
 -9811
 -4670
 gement-operator (518)-457-6934
 agement (518)-457-6934
 emediation-operator (518)-457-5861
 us site control-John Swarwout (518)-457-8807
 3)-797-7641
 gela Short (212)-264-9581
 -Dr. I owski (718)-643-7967

1 of 21

51

✓/AGREEMENT

3:00 [] AM ☒ PM

Telephone No.

518-457-2225

Telephone No.

Radiation and Hazardous Substances

4-641-2681

Telephone No.

Secretary who
 office. Status
 on Friday, 10/19/92.

1 of 21

ARCS II CONTRACT 68-W9-0051
MALCOLM PIRNIE, INC.
RECORD OF TELEPHONE CONVERSATION/AGREEMENT

File No. 8003-097/100/104-101

Date: 10/9/92

Time: 11:15 ☒ AM ☐ PM

☐ Incoming Call

From: _____

Telephone No. _____

Affiliation: _____

☒ Outgoing Call

To: Dr. Paul Merges 518-457-2225

Telephone No. _____

Affiliation: NYSDEC, Bureau of Radiation and Hazardous Subst.

Malcolm Pirnie Staff: Alfred Conklin
(Receiving or Calling) Name

201-529-4700 x261
Telephone No.

Summary of ☒ Conversation ☐ Agreement:

Dr. Merges out again, according to secretary,
and will not be in again until Tuesday 10/13/92.
I left message identifying project and asking him
to return call to me.

3 of 21

ARCS II CONTRACT 68-W9-0051
MALCOLM PIRNIE, INC.
RECORD OF TELEPHONE CONVERSATION/AGREEMENT

File No. ⁹⁹⁷8003-104-101

Date: 10/13/92

Time: 9:12 ☒ AM ☐ PM

☐ Incoming Call

From: _____

Telephone No. _____

Affiliation: _____

☒ Outgoing Call

To: Dr. Paul Merges 518-457-2225

Telephone No. _____

Affiliation: NYS DEC, Bureau Radiation, Hazardous Substances

Malcolm Pirnie Staff: Alfred Coulthart
(Receiving or Calling) Name

201-529-4700 x 261
Telephone No.

Summary of ☒ Conversation ☐ Agreement:

Called Dr. Merges per his office's instruction on 10/9/92
He is in conference and will return call.

4 of 21

ARCS II CONTRACT 68-W9-0051
MALCOLM PIRNIE, INC.
RECORD OF TELEPHONE CONVERSATION/AGREEMENT

File No. 8003-097, 100, 104-101

Date: 10/13/92

Time: 9:25 ☒ AM ☐ PM

☐ Incoming Call

From: _____

Telephone No. _____

Affiliation: _____

☒ Outgoing Call

To: Dr. Paul Herges

518-457-2225

Telephone No. _____

Affiliation: NYSDEC, Bureau of Radiation, Hazardous Substances

Malcolm Pirnie Staff: Alfred Coulter
(Receiving or Calling) Name

201-529-4700 x 261

Telephone No. _____

Summary of ☒ Conversation ☐ Agreement:

Telephoned Dr. Herges a second time & reached him.

Dr. Herges acknowledged that his unit was familiar with several of our sites. He transferred me to his staff person John Abunaw (Abunaw).

The above three projects, as well as Ossining Historical Society and Photo Chemical Products (8003-101 and 8003-102 resp.) were conveyed to Mr. Abunaw. He was immediately familiar with the names of three of the above: International Dico, Radium Luminous Materials and Photo Chemical Products. He indicated that he would check the files for these 5 sites to pull information and would call me back by Next Monday. He expressed concern & urgency.

Regarding these sites, and others, Mr. Abunaw offered that many sites they have listed are taken from a variety of sources such as business directories and some may be corporate H.Q. or office, not necessarily contaminated sites, or may have been known to have at one time stored radioactive materials.

Mr. Abunaw was asked if he could locate any additional contacts during his file search who could provide additional information and to provide them when we speak again.

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F:\rectele.jan(1)

ARCS II CONTRACT 68-W9-0051
MALCOLM PIRNIE, INC.
RECORD OF TELEPHONE CONVERSATION/AGREEMENT

File No. 8003-097/00/104-101

Date: 10/6/92

Time: _____ [] AM ☒ PM

☐ Incoming Call

From: _____

Telephone No. _____

Affiliation: _____

☒ Outgoing Call

To: NYS DOH, NYC Admin. Area. 212-502-0700

Telephone No. _____

Affiliation: _____

Malcolm Pirnie Staff: Alfred Coulter
(Receiving or Calling) Name

201-529-4700 x261
Telephone No.

Summary of ☒ Conversation [] Agreement:

Operator referred me to 212-613-4200, a division
dealing with Hazardous waste/Health. Had no
information.

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f:\rectele.jan(1)

ARCS II CONTRACT 68-W9-0051
MALCOLM PIRNIE, INC.
RECORD OF TELEPHONE CONVERSATION/AGREEMENT

File No. 8003-097/100/104-101

Date: 10/6/92

Time: _____ [] AM ☒ PM

[] Incoming Call

From: _____

Telephone No. _____

Affiliation: _____

☒ Outgoing Call

To: ^{DOH} Director's Assistance 518-474-5422

Telephone No. _____

Affiliation: NYS DOH.

Malcolm Pirnie Staff: Alfred Coulter 201-529-4700 x 261
(Receiving or Calling) Name Telephone No.

Summary of ☒ Conversation [] Agreement:

No information was available, it was referred to
DOH, Steve Bates at 518-458-6400.

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f:\rectele.jan(1)

ARCS II CONTRACT 68-W9-0051
MALCOLM PIRNIE, INC.
RECORD OF TELEPHONE CONVERSATION/AGREEMENT

File No. 8003-097/10/104-101

Date: 10/13/92

Time: 10:45 ☒ AM ☐ PM

☒ Incoming Call

From: Nigel Crawford

718-482-4595
Telephone No.

Affiliation: NYS DEC Region II

☐ Outgoing Call

To: _____

Telephone No. _____

Affiliation: _____

Malcolm Pirnie Staff: Alfred Gullin
(Receiving or Calling) Name

201-529-4700 x261
Telephone No.

Summary of ☒ Conversation ☐ Agreement:

Mr. Crawford returned my call to his office Friday
10/9/92. He indicated that his office did not handle
radioactive materials but that Dr. Merges office in
Albany did. He went on to confirm that all
radioactive files should be found in Dr. Merges office
which is NYS DEC, Bureau of Radiation, Hazardous Substances
at 518-457-2725.

8 of 21

ARCS II CONTRACT 68-W9-0051
MALCOLM PIRNIE, INC.
RECORD OF TELEPHONE CONVERSATION/AGREEMENT

File No. 8003-697/100/104-101

Date: 10/6/92

Time: _____ [] AM ☒ PM

[] Incoming Call

From: _____

Telephone No. _____

Affiliation: _____

☒ Outgoing Call

To: NYS DEC Region II

718-482-4851

Telephone No. _____

Affiliation: _____

Malcolm Pirnie Staff: Alfred Conklin
(Receiving or Calling) Name

201-529-4700 x261
Telephone No.

Summary of ☒ Conversation [] Agreement:

Seeking information re. the 3 referred project,
in preparation of performing PAs.

I spoke to operator/secretary who referred me
to Gopi Nathan at 718-482-4995.

9 of 21

ARCS II CONTRACT 68-W9-0051
MALCOLM PIRNIE, INC.
RECORD OF TELEPHONE CONVERSATION/AGREEMENT

File No. 8003-097/100/104-101

Date: 10/6/92

Time: _____ [] AM ☒ PM

[] Incoming Call

From: _____

Telephone No. _____

Affiliation: _____

☒ Outgoing Call

To: NY Hazardous Waste 212-613-4200

Telephone No. _____

Affiliation: NYS DOH

Malcolm Pirnie Staff: Alfred Conklin
(Receiving or Calling) Name

201-529-4700 X261

Telephone No. _____

Summary of ☒ Conversation [] Agreement:

Office had no information. Referred me to
Albany DOH. at 518-474-5422.

10 of 21

ARCS II CONTRACT 68-W9-0051
MALCOLM PIRNIE, INC.
RECORD OF TELEPHONE CONVERSATION/AGREEMENT

File No. 8003-097/100/104-101

Date: 10/6/92

Time: _____ [] AM [X] PM

[] Incoming Call

From: _____

Telephone No. _____

Affiliation: _____

[X] Outgoing Call

To: Mr. Steven Bates

578-458-6400

Telephone No. _____

Affiliation: NYS DOH - Albany

Malcolm Pirnie Staff: Alfred Canclini

201-529-4700 x 761

(Receiving or Calling) Name

Telephone No. _____

Summary of [X] Conversation [] Agreement:

Telephoned for Mr. Bates but found he was
not available. Requested information regarding
these three projects of his secretary who offered
that he would call me back.

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f:\rectele.jan(1)

ARCS II CONTRACT 68-W9-0051
MALCOLM PIRNIE, INC.
RECORD OF TELEPHONE CONVERSATION/AGREEMENT

File No 8003-097/100/104-101

Date: 10/6/92

Time: 3:00 [] AM ☒ PM

☒ Incoming Call

From: Steven Bates 518-458-6400

Telephone No.

Affiliation: NYS DOH - Albany

[] Outgoing Call

To: _____

Telephone No.

Affiliation: _____

Malcolm Pirnie Staff: Alfred Coulter 201-529-4700 x 261
(Receiving or Calling) Name Telephone No.

Summary of ☒ Conversation [] Agreement:

Mr. Bates returned my telephone request for information. He offered that he had no record of these three project sites and therefore could not assist further. He offered no new contacts. He suggested contacting Ezra Aviles at the NYSDEC Region II 518 718-482-4995 (Same office as Gaglianone)

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ARCS II CONTRACT 68-W9-0051
MALCOLM PIRNIE, INC.
RECORD OF TELEPHONE CONVERSATION/AGREEMENT

File No. 8003-097/100/104-101

Date: 10/6/92

Time: _____ [] AM ☒ PM

[] Incoming Call

From: _____

Telephone No. _____

Affiliation: _____

☒ Outgoing Call

To: NYC DOH - Radiation Control 718-643-7875

Telephone No. _____

Affiliation: _____

Malcolm Pirnie Staff: Alfred Conklin
(Receiving or Calling) Name

201-529-4700 x261
Telephone No.

Summary of ☒ Conversation [] Agreement:

Spoke with a "field engineer" who indicated
that he/they had no record/files for these
three projects.

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ARCS II CONTRACT 68-W9-0051
MALCOLM PIRNIE, INC.
RECORD OF TELEPHONE CONVERSATION/AGREEMENT

File No. 880 3-097/100/104-101

Date: 10/6/92

Time: _____ [] AM ☒ PM

[] Incoming Call

From: _____

Telephone No. _____

Affiliation: _____

☒ Outgoing Call

To: NYC DEP 718-699-9811

Telephone No. _____

Affiliation: _____

Malcolm Pirnie Staff: Alfred Coulter 201-529-4700 x261
(Receiving or Calling) Name Telephone No.

Summary of ☒ Conversation [] Agreement:

This office had no knowledge of these projects +
referred me to 718-595-4670

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ARCS II CONTRACT 68-W9-0051
MALCOLM PIRNIE, INC.
RECORD OF TELEPHONE CONVERSATION/AGREEMENT

File No. 8003-097/100/104-101

Date: 10/6/92

Time: _____ [] AM ☒ PM

☐ Incoming Call

From: _____

Telephone No. _____

Affiliation: _____

☒ Outgoing Call

To: NYC DEP 718-595-4670

Telephone No. _____

Affiliation: _____

Malcolm Pirnie Staff:

(Receiving or Calling) Name

Alfred Coulter

201-529-4700 x 561

Telephone No. _____

Summary of ☒ Conversation [] Agreement:

I was referred to Mr. Sergio Matos, NYC DEP,
at 718-595-4845.

15 of 21

ARCS II CONTRACT 68-W9-0051
MALCOLM PIRNIE, INC.
RECORD OF TELEPHONE CONVERSATION/AGREEMENT

File No. 8003-097/100/104-101

Date: 10/7/92

Time: 2:00 [] AM ☒ PM

☐ Incoming Call

From: _____

Telephone No. _____

Affiliation: _____

☒ Outgoing Call

To: Dept. Waste Management 578-457-6934

Telephone No. _____

Affiliation: NYSDOC Albany

Malcolm Pirnie Staff: Edward Coulter
(Receiving or Calling) Name

914-641-2681
801-529-4700 x
Telephone No.

Summary of ☒ Conversation [] Agreement:

Was referred to Hazardous Waste Remediation
unit at 518-457-5861.

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ARCS II CONTRACT 68-W9-0051
MALCOLM PIRNIE, INC.
RECORD OF TELEPHONE CONVERSATION/AGREEMENT

File No. 8003-097/100/104-101

Date: 10/7/92

Time: ~ 2:00 [] AM ☒ PM

[] Incoming Call

From: _____

Telephone No. _____

Affiliation: _____

☒ Outgoing Call

To: Hazardous Waste Remediation 518-457-5861

Telephone No. _____

Affiliation: NYS DEC Albany

Malcolm Pirnie Staff: Alfred Coulter 914-641-2681
(Receiving or Calling) Name Telephone No.

Summary of ☒ Conversation [] Agreement:

He was referred to Bureau Chief John Swarwout
of Bureau of Hazardous Site Control at 518-457-8802.

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ARCS II CONTRACT 68-W9-0051
MALCOLM PIRNIE, INC.
RECORD OF TELEPHONE CONVERSATION/AGREEMENT

File No. 8003-097/00/04-101

Date: 10/7/92

Time: 2:00 [] AM ☒ PM

[] Incoming Call

From: _____

Telephone No. _____

Affiliation: _____

☒ Outgoing Call

To: John Swannout 518-457-8807

Telephone No. _____

Affiliation: NYSDER (Albany) Bureau of Hazardous Site Control

Malcolm Pirnie Staff: Alfred Coulter 914-601-2681
(Receiving or Calling) Name Telephone No.

Summary of ☒ Conversation [] Agreement:

I was referred to Dr. Paul Merges, NYSDER
Bureau of Radiation and Hazardous Substances at
518-457-2225.

180621



STATE OF NEW YORK
DEPARTMENT OF LABOR
DIVISION OF SAFETY AND HEALTH
ONE MAIN ST.
BROOKLYN, NY 11201

RADIOLOGICAL HEALTH UNIT

October 23, 1992

Ms. Lisa Szegedi
Malcolm Pirnie, Inc.
104 Interchange Plaza
Cranbury, New Jersey 08512-9543

Dear Ms. Szegedi:

I have enclosed information from our files on the following former radium companies as you requested under the Freedom of Information Act:

1. International Dial Co., Inc.
22 West 19th Street
New York, New York 10011 22 pages
2. Canadian Radium and Uranium Corporation
a.k.a. Canrad - Hanovia, Inc.
43 West 16th Street
New York, New York 11 pages
3. Photo Chemical Products, Inc.
22-78 35th Street
Long Island City, NY 11105 25 pages
4. United States Radium Corporation
55 Liberty Street
New York, New York 0 pages

Nothing could be found for U.S. Radium at 55 Liberty Street. Most of our file concerns 535 Pearl Street which was demolished in the 1960's to make way for 26 Federal Plaza. If you have any further questions please contact me at (718) 797-7637.

Very truly yours,

Rose Marie Pratt
Rose Marie Pratt
Associate Radiophysicist

RMP/wp

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ARCS II CONTRACT 68-W9-0051
MALCOLM PIRNIE, INC.
RECORD OF TELEPHONE CONVERSATION/AGREEMENT

File No. 8003-102

Date: October 14, 1992

Time: 9:28 AM ☐ PM ☐

Outgoing Call

To: Angela Short

(212)-264-9581
Telephone No.

Affiliation: USEPA, radiation branch

Malcolm Pirnie Staff: Lisa Szegedi

(609) 860-0100
Telephone No.

Summary of Conversation:

Ms. Short informed me that a search for files on these radiation sites has already been completed. Places contacted include the NYSDEC and Argonne National Lab. She suggested several other places for us to check. These include the following: 1) Thomas' Register-she said this can be found in many libraries 2) The New York City Dept. of Industrial Adult Hygiene-she said this group may not exist on its own anymore, but may have been incorporated into another group 3) The New York City Buildings Dept.-this group contains a database which lists all buildings in the city, and any inspection etc. which has occurred there 4) The Public Health Service, center for human radiobiology 5) John Higgins, removal action branch of the EPA Edison-he did work on the Ossining Historical Society 6) The Sanborn Map Company

200421

**ARCS II CONTRACT 68-W9-0051
MALCOLM PIRNIE, INC.
RECORD OF TELEPHONE CONVERSATION/AGREEMENT**

File No. 8003-100

Date: November 9, 1992

Time: 1:45 AM ☐ PM ☐

Outgoing Call

To: name unknown

(718)-643-7967
Telephone No.

Affiliation: NYCBRC

Malcolm Pirnie Staff: Lisa Szegedi

(609) 860-0100
Telephone No.

Summary of Conversation:

I called to find out if they had any information on the request letter I sent in. I was told that Dr. Kulikowski has been busy, and I should call again next week.

Note: I was unable to obtain any information from this agency.

21 of 21

REFERENCE NO. 3

KADIUM LUMINOUS MATERIALS CO.

55 LIBERTY STREET

MANHATTEN

NEW YORK COUNTY

NEW YORK

OFF-SITE RECON.

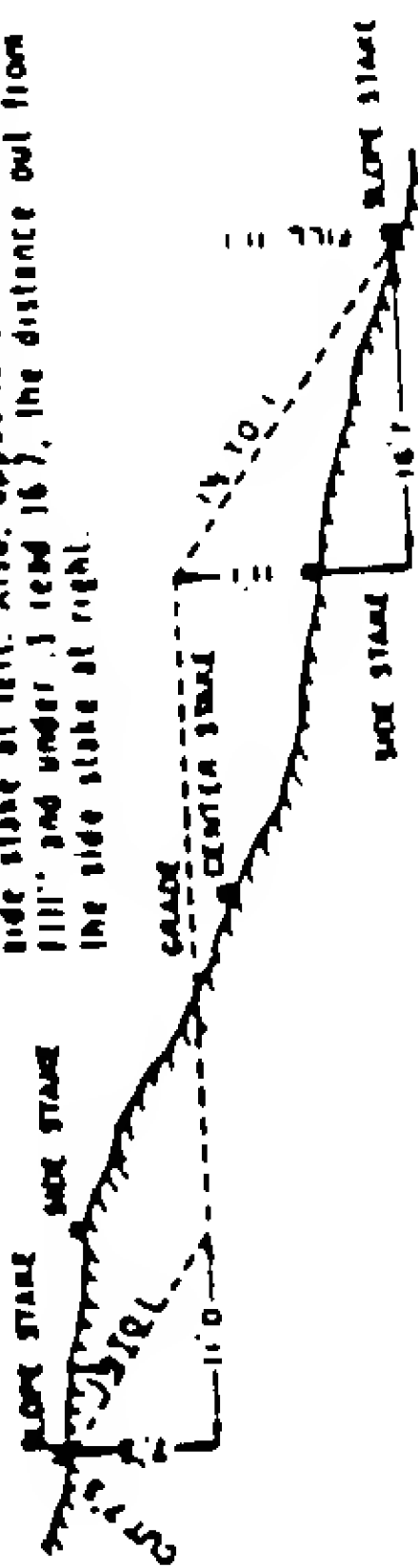
8003-104-101

10/28/92

The paper in this book is
made of 50% high grade rag stock with
a WATER RESISTING surface sizing.

DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING

Roadway of any Width. Side Slopes $1\frac{1}{2}$ to 1.
In the figure below, opposite 7 under "Cut or Fill"
and under 3 read 11.0, the distance out from the
side stake at left. Also, opposite 11 under "Cut or
Fill" and under 3 read 16.7, the distance out from
the side stake at right.



		Distance out from Side or Shoulder Stake											
		0	1	2	3	4	5	6	7	8	9		
Cut or Fill	Distance	0.0	0.2	0.3	0.5	0.6	0.8	0.9	1.1	1.2	1.4	0	1
1	1.5	1.7	1.8	2.0	2.1	2.3	2.4	2.6	2.7	2.9	3.1	2	3
2	3.0	3.2	3.3	3.5	3.6	3.8	3.9	4.1	4.2	4.4	4.6	4	5
3	4.5	4.7	4.8	5.0	5.1	5.3	5.4	5.6	5.7	5.9	6.1	6	7
4	6.0	6.2	6.3	6.5	6.6	6.8	6.9	7.1	7.2	7.4	7.6	8	9
5	7.5	7.7	7.8	8.0	8.1	8.3	8.4	8.6	8.7	8.9	9.1	10	11
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7	10.5	10.7	10.8	11.0	11.1	11.3	11.4	11.6	11.7	11.9	12.1	14	15
8	12.0	12.2	12.3	12.5	12.6	12.8	12.9	13.1	13.2	13.4	13.6	16	17
9	13.5	13.7	13.8	14.0	14.1	14.3	14.4	14.6	14.7	14.9	15.1	18	19
10	15.0	15.2	15.3	15.5	15.6	15.8	15.9	16.1	16.2	16.4	16.6	20	21
11	16.5	16.7	16.8	17.0	17.1	17.3	17.4	17.6	17.7	17.9	18.1	22	23
12	18.0	18.2	18.3	18.5	18.6	18.8	18.9	19.1	19.2	19.4	19.6	24	25
13	19.5	19.7	19.8	20.0	20.1	20.3	20.4	20.6	20.7	20.9	21.1	26	27
14	21.0	21.2	21.3	21.5	21.6	21.8	21.9	22.1	22.2	22.4	22.6	28	29
15	22.5	22.7	22.8	23.0	23.1	23.3	23.4	23.6	23.7	23.9	24.1	30	31
16	24.0	24.2	24.3	24.5	24.6	24.8	24.9	25.1	25.2	25.4	25.6	32	33
17	25.5	25.7	25.8	26.0	26.1	26.3	26.4	26.6	26.7	26.9	27.1	34	35
18	27.0	27.2	27.3	27.5	27.6	27.8	27.9	28.1	28.2	28.4	28.6	36	37
19	28.5	28.7	28.8	29.0	29.1	29.3	29.4	29.6	29.7	29.9	30.1	38	39
20	30.0	30.2	30.3	30.5	30.6	30.8	30.9	31.1	31.2	31.4	31.6	40	41
21	31.5	31.7	31.8	32.0	32.1	32.3	32.4	32.6	32.7	32.9	33.1	42	43
22	33.0	33.2	33.3	33.5	33.6	33.8	33.9	34.1	34.2	34.4	34.6	44	45
23	34.5	34.7	34.8	35.0	35.1	35.3	35.4	35.6	35.7	35.9	36.1	46	47
24	36.0	36.2	36.3	36.5	36.6	36.8	36.9	37.1	37.2	37.4	37.6	48	49
25	37.5	37.7	37.8	38.0	38.1	38.3	38.4	38.6	38.7	38.9	39.1	50	51
26	39.0	39.2	39.3	39.5	39.6	39.8	39.9	40.1	40.2	40.4	40.6	52	53
27	40.5	40.7	40.8	41.0	41.1	41.3	41.4	41.6	41.7	41.9	42.1	54	55
28	42.0	42.2	42.3	42.5	42.6	42.8	42.9	43.1	43.2	43.4	43.6	56	57
29	43.5	43.7	43.8	44.0	44.1	44.3	44.4	44.6	44.7	44.9	45.1	58	59
30	45.0	45.2	45.3	45.5	45.6	45.8	45.9	46.1	46.2	46.4	46.6	60	61
31	46.5	46.7	46.8	47.0	47.1	47.3	47.4	47.6	47.7	47.9	48.1	62	63
32	48.0	48.2	48.3	48.5	48.6	48.8	48.9	49.1	49.2	49.4	49.6	64	65
33	49.5	49.7	49.8	50.0	50.1	50.3	50.4	50.6	50.7	50.9	51.1	66	67
34	51.0	51.2	51.3	51.5	51.6	51.8	51.9	52.1	52.2	52.4	52.6	68	69
35	52.5	52.7	52.8	53.0	53.1	53.3	53.4	53.6	53.7	53.9	54.1	70	71
36	54.0	54.2	54.3	54.5	54.6	54.8	54.9	55.1	55.2	55.4	55.6	72	73
37	55.5	55.7	55.8	56.0	56.1	56.3	56.4	56.6	56.7	56.9	57.1	74	75
38	57.0	57.2	57.3	57.5	57.6	57.8	57.9	58.1	58.2	58.4	58.6	76	77
39	58.5	58.7	58.8	59.0	59.1	59.3	59.4	59.6	59.7	59.9	60.1	78	79
40	60.0	60.2	60.3	60.5	60.6	60.8	60.9	61.1	61.2	61.4	61.6	80	81

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DESCRIPTION

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SITE SKETCH

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OFF-SITE RECONNAISSANCE FIELD NOTES

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0740 Malcom Ritchie personnel "Wynne" and Alfred Conklin arrive on-site.

Weather: Mild Clear Sky, light breeze Temperature approximately 75°F.

0745 Alfred Conklin left site area, W. Boyden and L. Szegodi remain to perform off-site recon.

The building is approximately 25 stories high. The placard on the front of the building reads, "Liberty Tower" and the date of construction is 1909, with 1979 listed as the date of restoration.

The building is presently undergoing additional work with the permit posted on the front entrance listing the work as "To erect a temp. scaffold support structure at roof as per DWGS. 21-09-090 - issued by City of New York Dept of Buildings. An additional Dept. of Buildings permit reads "Installation of shed 155 feet on Nassau St., 108 ft on Liberty St., 15 ft around corner during facade repair. No change in use, egress or occupancy." The two permits are numbered P0005157 and P0001650, respectively.

An additional card in front entrance window is from the Landmarks Preservation Commission (City of NY) and states only "Permit for Minor Work; permit number 2-0209. Both Dept. of Buildings permits list the 'Use' of

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the area as "Residence Buildings". Presently the building has a shed erected on Liberty and Nassau streets and around the corner to the west side off the building in narrow alley. The south side corner of the building is vacant on the ground floor, with a sign stating "Store for Rent: Sylvan Lawrence Co. Real Estate". Above is a sign reading "Chef's Palace". In the center of Building facing south are ornate glass doors facing onto Liberty Street on the southeast corner of building, the ground floor is vacant and construction debris - mostly wood is visible through windows. The entire area is paved, with concrete slab sidewalks out to the curb where Liberty and Nassau streets are paved with asphalt. Directly across Liberty street is a modern high rise office complex. Diagonally across the intersection off Liberty and Nassau (SE of Liberty Tower) is another modern office building with a sign indicating the headquarters of Chase Manhattan Bank. To the west of Liberty Tower, across narrow alley is a Gothic architecture, modern building whose ground floor is vacant and undergoing construction. The sign on its front about

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read "NYCCI"

Liberty Tower continues along Nassau Street, including the address of 45 Nassau Street, which is the "Mitsu Restaurant". Other businesses on the ground floor of Liberty Tower, Nassau Street, include "Liberty Locksmiths Inc" (vacant), "Liberty Shoe Repair" (vacant), a vacant grocery, an open deli ("Liberty Deli"), and a vacant jeweler.

Across Nassau Street from Liberty Tower is a stone structure housing the Federal Reserve Bank. This building is made of limestone and Sandstone and lies due East of Liberty Tower.

The land in this area appears to slope East along Liberty Street and at a slightly steeper grade, North along Nassau St. and the narrow alley way.

North of Liberty Tower is a 4 story brownstone building which directly abuts Liberty Tower. It houses a Pizzeria Restaurant and Nail Salon on the ground floor, facing East onto Nassau Street.

The Federal Reserve Bank on the NE corner of Liberty and Nassau Street has a piazza which needs... Five stories are below street level with subterranean vaults resting on bedrock. There is another piazza designating the Federal Reserve Bank building as a "Designated Landmark, New York City".

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